

#### CENTER FOR HEALTHCARE EDUCATION AND STUDIES

#### **DISTANCE LEARNING**

By

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Volume I Distance Learning Analysis Study

**Contract Study** 

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#### **ABSTRACT**

#### **DISTANCE LEARNING**

Volume I Distance Learning Analysis Study Volume II Course Analysis Manual for Conversion to Distance Learning

The primary focus of this project is the determination of the feasibility and cost effectiveness of applying Distance Learning strategies to 22 selected PPSCP courses and development of a Distance Learning Analysis Procedures Manual.

# DISTANCE LEARNING ANALYSIS STUDY FOR PROFESSIONAL POSTGRADUATE SHORT COURSE PROGRAM



FINAL REPORT

#### 1. Purpose of Report

The Department of Health Education and Training (DHET) commissioned a study to determine the feasibility of converting their Professional Postgraduate Short Course Program (PPSCP) from their current format to a distance learning format. This report presents the results of that distance learning study.

This report is a companion to another document prepared during the study - the "Course Analysis Manual for Conversion to Distance Learning". The analysis manual provides a step-by-step procedure for performing the analysis of an existing course to determine whether it might be converted to a distance learning format. For details on that process please refer to the analysis manual.

This report starts with an overview of the process we used to conduct the study. It follows with a summary of the key findings of the study. Subsequent sections provide some recommendations of things that might be considered as the results of this study are applied to the PPSCP; and, provide detailed analyses of individual courses that were audited during the conduct of this study.

This study was performed by a small group of consultants that included a Ph.D. in Education, a Ph. D. in Industrial Psychology, an alumnus of DHET, and data researchers who have developed and delivered instruction in a variety of subjects.

#### 2. Procedures Followed

To perform this distance learning analysis several steps were performed. The key steps in the process were:

- Review the list of courses that were to be audited as part of this study
- Develop survey instrument to collect the data necessary to make recommendations
- Baseline the technologies that might be applied to distance learning, and identified key attributes of the technologies that make them applicable or inappropriate for various course contents
- Determine what distance technologies are supported by DHET, the Army Medical Directorate (AMEDD), and the Training and Doctrine Command (TRADOC) that might be available for converted courses
- Use the survey data to refine the analysis process presented in the original study proposal
- Apply the refined survey instruments to the remainder of the courses to be audited
- Develop analysis tools for making a decision about convertibility of a course
- Apply the analysis tools to develop a recommendation
- Synthesize trends and overall findings into the final report.

#### 2.1 Infrastructure Analysis - The Total Army Distance Learning Plan

To ensure that the recommendations made in this report were implementable, we gathered data on the technologies that the Army was investing in that might make distance learning possible. The Total Army Distance Learning Plan has resulted in significant investments in training facilities around the world that can support a variety of computer and televised delivery formats. This infrastructure of communications, computers, and television resources was used as the bounds of options for our recommendations.

The Student Survey instrument administered at each course we audited allowed us to determine three things:

- 1) Did students have reasonable access to Army Distance Learning Centers at their normal place of work?
- 2) Were computers present at the student's place of work, or did they own home computers?
- Were the computers that students have access to connected to the internet in some fashion?

In addition, we gathered information about the configuration of computers that students have access to in order to determine how many students had a "common" platform.

#### 2.2 Analysis of distance learning technologies

Using information gathered from open sources we identified the existing and emerging technologies that could be used for the delivery of instruction from a distance. Those technologies were compared with the Army infrastructure that would exist over the next 2-3 years. Where there was a match, we included the technologies in the worksheets and tables that were used to develop our individual course recommendations. Where there was a technology that was not explicitly support in the Total Army Distance Learning Plan, we made mention of technologies that might be used to enhance a course in the future. We made a conscious decision not to recommend delivery media that would require the Army to make additional investments in infrastructure in order to make our recommendation implementable.

#### 2.3 Development and refinement of the Data Collection Instrument

Assumptions we made in our study proposal about the content and organization of PPSCP courses proved to be inaccurate. PPSCP courses are not courses in a traditional sense. They generally are delivered in a symposium or conference format. The content for most courses is very different from one presentation to the next. The objectives of each course are very broad and general. Individual presentations or course modules are tied to the overall course objective, but a traditional hierarchy of learning objectives is not developed for each course. Instead, the courses tend to be informative and provide introductions to tools, techniques or issues that are currently facing the medical profession.

As a result of this difference between what we assumed about the courses, and the reality of their format and content, we had to completely revise our data gathering and analysis strategy early in the study. We took the revised instruments and reapplied them to the initial three courses to ensure that our final recommendations for individual courses were based upon the same data gathering techniques.

#### 2.4 The data collection process

Course and infrastructure data were gathered primarily from two sources. Course information was gathered from the people who were responsible for organizing, staffing, and conducting a specific course. These people are generally discussed as "Course Administrators". They develop the syllabus for the course, identify and secure speakers, perform student registration functions, and ensure that proceedings from the course are available in some form to the students.

Infrastructure information was gathered from students attending the courses as well as Course Administrators. While survey instruments were provided to all students attending a course, the return rate varied greatly. In some cases we received most of the student surveys for a course. In other instances our return rate was only about half. We don't believe that the use of this incomplete data biases our recommendations or changes the list of technologies that are viable for PPSCP course delivery. There was enough

cohesiveness in the surveys were did receive to conclude that the student population was well represented by our survey data.

#### 2.5 Data analysis and reporting process

Details of the data analysis and reporting process are captured in the companion Course Analysis Manual for Conversion to Distance Learning. In general, we evaluated whether the educational content of a course would be made less effective if the course was converted to a distance learning media. In certain cases the primary goal of the course was to develop leadership skills or enhance interpersonal skills that would be very difficult (though not impossible) to accomplish via distance learning techniques. In other cases there was hands on lab work with access to materials or equipment not generally accessible outside of the course setting. The cost of converting these types of courses to distance learning are significantly more expensive to convert than to deliver in their current format.

When evaluating the material to be converted to distance learning, we factored our portions of the courses devoted to topics outside of the focus of the course. In many cases briefings that were of interest to the students were made a part of the conference (Tri-Care briefings, current job opportunities in a career field, evolution of individual Corps organizations). These modules of the course were not considered in our analysis our recommendations for an individual course.

#### 3. Summary of Findings

This section provides general conclusions reached as a result of our study. These are offered as recommendations for the PPSCP program as a whole, not recommendations for a specific course.

#### 3.1 Course Recommendations

The table below identifies the courses audited as part of this study and provides the summary recommendation for each course. Details for of the recommendations for an individual course is contained at the end of this report in the section with the corresponding course number on the tab label. Overall, two courses were recommended for conversion to a video teletraining (VTT) format, twelve were recommended for conversion to a web based training (WBT) format, one was recommended for enhancement through a distance learning technology, and seven were recommended to remain in their current format.

**Table 3-1:** Summary Course Recommendations

Course #	Course Title	Recommendation
A0111	1 <sup>st</sup> Combined Operational Aeromedical	WBT+ Enhancement
	Problems Course	
A0116	Gary P. Wratten Military Surgical	No change
	Symposium	
A0126	14 <sup>th</sup> Annual ACP/Army Regional	WBT + Enhancement
	Meeting: Internal Medicine	
A0137	Army Force Health Protection Conference	WBT
A0156	Multidisciplinary Approach to Head and	No change
	Neck Trauma	
A0202	Endodontics for the General Dentist	VTT
A0208	Restorative Dentistry and Dental	VTT
	Materials	
A0306	1998 Military Veterinary Medical	WBT
	Seminar	
A0307	Military Veterinary Foreign Animal	No change
	Disease Diagnostics	
A0416	Patient Administration Symposium	WBT
A0421	Health Facility Life Cycle Acquisition:	WBT
	Newcomer's Orientation Track	
A0423	AMEDD Worldwide Personnel	WBT
	Management Course	
A0437	Army Medical Evacuation Conference	Enhancement only
A0438	US Army Health Care Logistics	WBT
A0513	Phyllis J. Verhonick Research Course	WBT + Enhancement
A0515	Military Nursing Practical Course	WBT
A0524	Army Nurse Corps Company Grade	No change
	Leadership Course	
A0624	Army Medical Specialist Corps Executive	No change
	Management Course	
A0630	AMSC Combat Casualties and	No change
	Humanitarian Missions Course	
A0711	91 B Multisystem Trauma Short C	WBT
A0717	91 R/S/T Short Course (Vet)	WBT
A0803	Health Care Ethics	No change

#### 3.2 Student Information Summary

A large amount of data was gathered about the demographics and geography of the students attending the PPSCP programs. This information gave insights into the overall costs of the current course, the access that students have to computers and other distance learning delivery platforms, and their goals for attending PPSCP courses The table below summarizes the findings of these surveys.

Data Category	Findings
Army Attendees	In most cases the courses were predominantly attended
	by active duty, regular Army staff. Normally there was a
	small percentage (5% or less) of attendees from other
	services or agencies. There were exceptions, such as the
	Health Care Logistics Course where nearly half of the
	attendees were from the Air Force. Only a small
	percentage of the courses were attended by members of
	the Army Reserve or National Guard.
Ranks	The highest attendance in these courses fell in the CAPT
	and MAJ ranks, representing about 40-50% of most
	courses. There was generally a 10% student population
	in each of the LTC and 2LT ranks. Civilians and other
	agency attendees were generally a small percentage of
	the attendees (less than 5%)
TDY Students	In general, over 85% of all attendees traveled on TDY
	status to attend these courses.
Primary Goal of	To Improve Professional Skills
Attendance (Decending	To Learn New Trends In My Professional Area
Order of Importance)	To Interact with Peers
	To have a better understanding of my organization
	To earn Continuing Educational Credits
	To develop professional contacts or networks
	To become familiar with a topic area
Computer literacy	On a 5 point scale, with 5 being "very literate" - 4.5
Regular Use of Computers	On a 5 point scale, with 5 being "every day" - 4.4

#### 4 Recommendations

There were several general findings that may be helpful in using this study to implement a distance learning program for PPSCP. Those findings are discussed below.

#### 4.1 Refinement of Data Collection

The data gathering instruments used in our study, and provided in the companion analysis manual proved very useful. However, if we were to continue with additional audits we would probably eliminate the use of the student survey. While the data was very illuminating, it did not vary greatly from course to course. Once we were able to establish a baseline, the subsequent courses generally followed the trend closely.

#### 4.2 Development of a Style Guide for VTT and WBT

In order to make the development of VTT and WBT courseware and productive and consistent as possible, effort should be placed on the development of style guides for both

technologies. The WBT style guide could be broadened to encompass standards for computer based training (CBT) as well. The use of these style guides will immensely improve the usefulness of the developed products, and minimize the cost of producing the courseware.

#### 4.3 Administrative Factors

Conscious effort will need to be made to "market" distance learning coureware. The availability of courses and the relevance of the course content needs to be easily accessible to the target student population, or they won't enroll. The registration and tracking of student progress will need to be facilitated by automated tools created to support the administration of a distance learning curriculum.

#### 4.4 Providing Assistance

DHET will need to add staff who can help the content developers, answer questions, and work through problems. These may be Program Managers, but the skill set will be specifically oriented to authoring courseware using automated tools, not the subject matter or the course objectives. DHET or the program officers should be proactive keep track of the content development. It's like putting together an anthology, there is a need to keep track of all the parts as the courseware comes together for each course offering.

The following tabbed sections present the final recommendations for the individual courses audited through this study.

## 1st Combined Operational Aeromedical Problems Course Conversion Analysis

#### COMBINED OPERATIONAL AEROMEDICAL PROBLEMS COURSE

#### Course Purpose:

Provide information and training to all military personnel (primarily Army and Navy) dealing with aeromedical problems, to include flight surgeons, medics and technicians. This was the FIRST combined aeromedical problems course.

#### Course Content Stability: Low

The course presentation and specific focus will change from year to year.

#### General Presentation Style: Distributive

Practically all of the presentations were lectures supported by graphics. A CD-ROM is to be provided to participants containing copies of all the presentations.

#### Instructional Aids:

Computer/PowerPoint, video, overheads. All presentations had more than adequate technical

#### Hands-on Addivides:

One hands-on demonstration session was available throughout most of the conference.

#### Degree of Instructional Interaction:

The degree of interaction was generally low. Very little time was available to ask questions

#### Relevant Instructional Value: Moderate to high

This course had in excess of 135 presentations. A number of specialties were represented. primarily flight surgeons. While some of the presentations were of general interest, others were of specific interest to only one segment of the audience. The relevance of the instruction to the participant dependent primarily on careful selection of presentations by the participant.

#### Recommendation

Convert portions of this course to Web based training, others to an electronic journal. Because the content of this course will change every year, the actual portion to be designed as distance learning versus that presented in another format such as web-based discussion groups, webbased professional libraries, electronic journals, etc., will have to be made during the analysis phase.

While an Aeromedical Problems Web Site could be done it would require careful indexing and content supervision possibly by a board of experts. This course could be made into a number of courses. Aspects of this course were actually a professional association conference. While such activities are necessary, not being instruction, they would not be suitable for distance learning. While the current cost of the course is relatively high, (\$492,000) 60% of the cost was covered by Navy funds. The Army's expenses for this course was \$192,000 which is significantly less than the \$281,475 that would be required to convert this course.

#### DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: 1st Combined Operat				e Num		40111			<b></b>
Aeromedical Problems Course									
1. Instructional goals of the cou (primarily Army and Navy) dealing with technicians.	<b>irse:</b> Provi n aeromedi	ide informa cal probler	atio ns,	n and to incl	trainin lude fl	g to all milita ight surgeon	ıry perso s, medic	nnel s and	
2 Fraguency of course offering in	or voor:	# 1	1					Vaa	NI-
<ul><li>2. Frequency of course offering p</li><li>3. Current length of course in hou</li></ul>		# 1 # 91	7.	Car	overt:	to DL?		Yes	No
4. Number of hours to be converted		# 68	8.		nance			X	
5. Number of registered students		# 455	0.		iance	: :			
6. Number of potential students the		# 400	-						
could benefit from the course		# 1500							
Codia Solicii il olii tilo codigo		# 1000	L						
9. If item 8 = Yes, Specify - I	Electronic	Journal							
Technology	Level 1	Level	2	Leve	el 3	Level 4			
WBT		Х							
CBT									
VTT	Low			High					
Other									
Labor Hours Estimation Method	: Short _)	X_ Long		Sync	hron	ous			
		ost Data	1						
10. Total Cost Year One		JOST Date	ı		\$ 28	1,475			
11. Total Cost Year Two						31,475			
12. Total Cost Year Three						31,475			
13. Total Cost Year Four						31,475			
!4. Total Cost Year Five						31,475			
15. Total costs year 1 to 5 (Sun	n of lines	10 throu	ah	14)		407,475			
						, , , , , , , , , , , , , , , , , , , ,			
16. Average cost, years 1 to 5 (div	vide value	in line 15	ō b	y 5)	\$ 28	1,475			
17. Total potential students over a				,				• •	
(multiply the number of potent	tial studen	its (item 6	al	oove)					
by 5.)					# 75	00			
18. Average cost per potential s	student o	ver 5 yea	r						
period.									
(divide the value in line 15 by	the value	in line 17	)		\$ 18	8			
	onal Hard	ware/Sol	tw	are R					
Item:					Cos	t per unit	Total	Cost	
Proposed Enhancement(s)	Cost								
Electronic Journal									
Lieutonic Journal	\$ 3,375								
	\$								
Total Enhancement Costs	\$ \$ 2.275								
Total Enhancement Costs	Total Enhancement Costs \$ 3,375								
g pakelaga saturtur									

Instructional Formats and Physical Training Requirements

Course Name: Course Number: 1st Combined Operational Aeromedical Problems A0111

Course

of Course sing this structional ormat	Format	Description	Physical Presence Required?		
95%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No		
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No		
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No		
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?		
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?		
4%	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.			
	Student Verbal Presentations	Students present verbal information to the larger group.	?		
	Student Procedural Presentations	Students present procedural information to the larger group.	?		
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?		
1%	Shop Activity	Hands-on technical tasks/procedures.	?		
	Lab Activity	Hands-on laboratory tasks/procedures.	?		

#### **Course Information Summary Sheet**

Course Name: 1st Combined Operational Aeromedical Problems Course

Course Number: A0111

Length of course - number of hours of instruction: 85

**Number of Registered Students: 455** 

Number of potential students that could benefit from this course: 1500

**Instructional goals of the course:** To provide information and training to all military personnel. to include flight surgeons, medics, and technicians, dealing with aeromedical problems.

Frequency of Course Offering: Once a year

Continuing Education Credit Offered? Yes Number: 31

#### For each item listed, check ✓ row marked "Check" if observed or documented. Administrative Requirements Check Check

Manimotrative Requirements	OHCCK		CHECK
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	1
Open entry / open exit			
Fraining / Instruction Approach			
Lecture / Text	X	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	
Simulation (roll play, in-basket)			+
Problem solving exercises			-
esting Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval	X
Performance test – hardware			
Graphics			
2D graphics still	X	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	Х
Communications			
Audio		Open Discussion	1
Indirect discourse		Question and answer	
Assigned reading			

Note: Demonstrations were used less than 4% of the time and Audio (for non-voice sound reproduction) was used less than 2% of the time. These factors will not be considered for the remainder of the analysis.

4. Course Technology Match Table

Course (Name) 1st Combined Operational Aeromedical Problems Course			Technologies			
Administrative Requirements	Check	CBT	WBT	VTT	1	
Self pacing	CHECK	CBI	AADI	VII		<del> </del>
Group training						
On-demand availability	ļ			_		
Open entry / open exit						
Detailed student records						
Test Security						
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	X					
Live Presenters (guest speakers)						
Self study						
Demonstration						
Exhibit						
Guided Discussion					-	<u> </u>
Simulation – knowledge based						-
Simulation - hardware						-
Problem solving exercises	-					-
Learning to Mastery						
Practice / drill	-					<del> </del>
Structured Review						-
Feedback on performance				_		+
Remediation				_		
Group activities/collaborative tasks						
Testing Types	1			1	l	
Objective knowledge tests			T	T		
Essay						1-
Performance test –"paper" exercise						
Performance test – hardware simulation	-					-
Performance test – hardware						
Oral testing						
No testing/Student course evaluation	X					
Graphics	^				<u></u>	
2D graphics still	X			T	T	
3D graphics still				-	-	
2D animation						
3D animation				1		-
2D interactive animation			-			-
3D interactive animation						
Pre recorded video /films	X		-			-
Communications	1 /	<u> </u>			1	
Audio	T	I	T		T	1
Indirect discourse					-	-
Assigned reading					-	-
Open Discussion	-				-	-
Question and answer opportunities	1				-	
Question and answer opportunities						

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

**Technology Interactivity Factors** 

<b>Course Name:</b> 1st Combined Operational Aeromedical Problems Course	Course Number: A0111						
Asynchronous Course	WEB Based Training						
Interactivity Factors	Level 1	Level 2	Level 3	Level 4			
Administrative Requirements							
Self pacing		>>>>>>	>>>>>>	>>>>>>			
Group training	1.			110.00			
On-demand availability	,,,,,,,,	>>>>>>	>>>>>	>>>>>			
Open entry / open exit		>>>>>>	>>>>>>	>>>>>			
Detailed student records		>>>>>>	>>>>>>	>>>>>			
Test Security		>>>>>>	>>>>>>	>>>>>>			
Multiple test forms			>>>>>>	>>>>>			
Training / Instruction Approach							
Lecture / Text	Х	>>>>>>	>>>>>>	>>>>>			
Live Presenters (guest speakers)							
Self study		>>>>>>	>>>>>>	>>>>>			
Demonstration			>>>>>>	>>>>>>			
Exhibit			>>>>>>	>>>>>			
Guided Discussion							
Simulation – knowledge based			>>>>>	>>>>>			
Simulation - hardware				***************************************			
Problem solving exercises			>>>>>	>>>>>>			
Learning to Mastery		>>>>>	>>>>>>	>>>>>>			
Practice / drill		>>>>>	>>>>>>	>>>>>			
Structured Review	5 - 2			>>>>>			
Feedback on performance			>>>>>	>>>>>>			
Remediation			>>>>>>	>>>>>			
Group activities/collaborative tasks				*******			
Testing Types							
Objective knowledge tests		>>>>>	>>>>>	>>>>>			
Essay	- 5						
Performance test –"paper" exercise			>>>>>>	>>>>>>			
Performance test – hardware simulation			7777777	222222			
Performance test – hardware							
Oral testing							
No testing/Student course evaluation	Х	>>>>>	>>>>>>	>>>>>>			
Graphics	^						
2D graphics still	X	>>>>>	>>>>>	>>>>>>			
3D graphics still	^		>>>>>>	>>>>>>			
2D animation			>>>>>>	>>>>>>			
3D animation				>>>>>>			
2D interactive animation							
3D interactive animation				>>>>>>			
Pre recorded video /films		V					
Communications		X	>>>>>	>>>>>			
Audio		>>>>>	>>>>>>				
Indirect discourse		////////	////////	>>>>>			
Assigned reading		>>>>>>	>>>>>	>>>>>			
Open Discussion							
Question and answer opportunities							

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

**Technology Interactivity Factors** 

Course Name: 1st Combined Operational Aeromedical Problems Course	Course Number: A0111						
Asynchronous Course	Computer Based Training						
Interactivity Factors	Level 1	Level 2	Level 3	Level 4			
Administrative Requirements							
Self pacing	,-,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	>>>>>>	>>>>>>	>>>>>			
Group training							
On-demand availability		>>>>>>	>>>>>>	>>>>>			
Open entry / open exit		>>>>>>	>>>>>>	>>>>>			
Detailed student records							
Test Security							
Multiple test forms			>>>>>>	>>>>>			
Training / Instruction Approach							
Lecture / Text	Х	>>>>>>	>>>>>>	>>>>>			
Live Presenters (guest speakers)							
Self study		>>>>>>	>>>>>>	>>>>>			
Demonstration			>>>>>>	>>>>>			
Exhibit			>>>>>>	>>>>>			
Guided Discussion							
Simulation – knowledge based			>>>>>>	>>>>>			
Simulation - hardware			1				
Problem solving exercises		>>>>>>	>>>>>>	>>>>>			
Learning to Mastery		>>>>>>	>>>>>>	>>>>>			
Practice / drill		>>>>>>	>>>>>>	>>>>>			
Structured Review			>>>>>>	>>>>>			
Feedback on performance		>>>>>>	>>>>>>	>>>>>			
Remediation			>>>>>>	>>>>>			
Group activities/collaborative tasks		1.0					
Testing Types							
Objective knowledge tests		>>>>>>	>>>>>>	>>>>>			
Essay							
Performance test - "paper" exercise			>>>>>>	>>>>>			
Performance test – hardware simulation				>>>>>			
Performance test – hardware							
Oral testing							
No testing/Student course evaluation	Х	>>>>>>	>>>>>>	>>>>>			
Graphics				I			
2D graphics still	Х	>>>>>>	>>>>>>	>>>>>			
3D graphics still			>>>>>>	>>>>>			
2D animation			>>>>>>	>>>>>			
3D animation				>>>>>			
2D interactive animation				>>>>>			
3D interactive animation							
Pre recorded video /films		Х	>>>>>>	>>>>>			
Communications			1	1			
Audio		>>>>>>	>>>>>>	>>>>>			
Indirect discourse		l					
Assigned reading		>>>>>>	>>>>>>	>>>>>			
Open Discussion				1			
Question and answer opportunities							

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

	Short Worksheet: Development Time									
Sh	Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction									
	Course Name: 1st Combined Operational Aeromedical Problems Course									
	Media: Web Based Training Level: 2									
		Analysis	Design	Development	Implementation	Sums				
1	Percentage of Time Spent by Task Type by Level	.40	.20	.25	.15	p				
2	Multiply line 1 by average * hours200									
3	Average hrs. per phase	80	40	50	30	angell, t				
4	Adjustments ** for hours per phase Use 1 for added time and for less time	.6 <sup>1</sup>	.5	.8	.3					
5	Adjusted hrs. per phase. Multiply line 3 by line 4.	48	20	400	9	2. 2. 3.				
	Total Labor Hours -			w.i.s.		117				

<sup>\*</sup> Average hours per hour of instruction

\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

Given that this course will require a substantial amount of reorganization to make it suitable for distance learning from an instructional perspective, additional time will be needed during the analysis phase. possible time savings are reduced to 40%.

**Short Worksheet: Development Time** 

Sh	Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction							
	ourse Name: 1st Combine				out of motiuotion			
				Media: CBT Mul	timedia Lev	<b>/el:</b> 2		
		Analysis	Design	Development	Implementation	Sums		
1	Percentage of Time Spent by Task Type by Level	.40	.20	.25	.15	sairi Ti		
2	Multiply line 1 by average * hours200				Andreas y profession of the second of the se			
3	Average hrs. per phase	80	40	50	30			
4	Adjustments ** for hours per phase Use 1 for added time and for less time	.6 <sup>2</sup>	.5	.8	.3			
5	Adjusted hrs. per phase. Multiply line 3 by line 4.	48	20	40	9			
	Total Labor Hours - sum across line 5					117		

<sup>\*</sup> Average hours per hour of instruction
\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

<sup>&</sup>lt;sup>2</sup> Given that this course will require a substantial amount of reorganization to make it suitable for distance learning from an instructional perspective, additional time will be needed during the analysis phase. possible time savings are reduced to 40%.

#### **Course Cost Estimation Worksheet**

Course Cost Estimation Worksheet  Course Cost Estimate Worksheet: Web Based Training						
	rse Name: 1st Combined Operational medical Problems Course	Course Number: A	0111			
1	Write the sum from Refined Estima estimated number of hrs. per hr. of		Hrs. 117			
2	Average hourly labor cost in dollars	3	\$ 50			
3	Multiple line 1 by line 2 and put the	results on line 3.	\$ 5850			
4	Actual number of classroom equiva converted or developed.		Hrs. 68			
5	Compression: If conversion to asymmultiply line 4 by .7 (seven tenths) on line 5. If not a conversion to asy skip line 5	Hrs. 48				
6	Multiply line 3 by line 5 if a conversion asynchronous delivery <b>OR</b> line 3 by conversion to asynchronous deliver on line 6.	\$ 280,800				
	Do not use lines 7 to 12 for any	y costs that are to	be shared.			
7	Infrastructure Costs		\$			
8	Recurring Costs		\$			
9	Delivery Labor Costs		\$			
10	Travel Costs		\$			
11	Miscellaneous Costs (Electronic Jo	urnal)	\$ 675			
12	Add line 7 to 12		\$ 675			
13	Total Cost - Add lines 6 and 12.		\$ 281,475			
14	Number of potential students	# 1500				
15	Average Cost Per Student Divide I	ine 13 by line 14	\$ 188			
#1 \$1 \$1						

#### **Course Cost Estimation Worksheet**

	Course Cost Estimate Wo	rksheet: CBT Mul	timedia		
	rse Name: 1st Combined Operational dedical Problems Course	Course Number: AC	)111		
1	Write the sum from Refined Estimate estimated number of hrs. per hr. of i		Hrs. 117		
2	Average hourly labor cost in dollars		\$ 50		
3	Multiple line 1 by line 2 and put the i	results on line 3.	\$ 5850		
4	Actual number of classroom equival converted or developed.		Hrs. 68		
5	Compression: If conversion to asynmultiply line 4 by .7 (seven tenths) a on line 5. If not a conversion to asynskip line 5	and put the results	Hrs. 48		
6	Multiply line 3 by line 5 if a conversion asynchronous delivery <b>OR</b> line 3 by conversion to asynchronous delivery on line 6.	line 4 if not a	\$ 280,800		
	Do not use lines 7 to 12 for any	costs that are to	be shared.		
7	Infrastructure Costs		\$		
8	Recurring Costs		\$		
9	Delivery Labor Costs		\$		
10	Travel Costs		\$		
11	Miscellaneous Costs (Electronic Jou	ırnal)	\$ 675		
12	Add line 7 to 12		\$ 675		
13	Total Cost - Add lines 6 and 12.		\$ 281,475		
14	Number of potential students		# 1500		
15	Average Cost Per Student Divide lin	ne 13 by line 14	\$ 188		
		7 (2)	V 95		

Separate worksheets are needed for each technology. Follow the instructions given on the worksheet.

Cost Estimate for a Single Course Over a Five Year Period

Cost Estimate for a Single Cor Course Name: 1st Combined Op Aeromedical Problems Course			Course Number: A0111						
Technology Selected	Level	1	Level 2	Level 3	Level 4				
WBT			X						
CBT									
VTT	Low			High	·				
Other									
Cost Factors			Values		So	urce			
1. Labor hours year 1		56				4100			
2. Labor hours year 2		56		Course T	echnology N	Natch Table			
3. Labor hours year 3		56		Course Technology Match Table Technology Interactivity Factors Table					
4. Labor hours year 4		56			<u> </u>	,			
5. Labor hours year 5		56		-					
6. Subtotal			080						
7. Average labor cost		\$5							
8. Total labor Cost over 5 yr. pe	eriod.								
Multiply line 6 by line 7			,404,000						
Additional Development/ Deliv	ery Co	st	Bv Year						
9. Cost year 1			575	Data to S	Data to Support Cost Analysis Worksheet				
10. Cost year 2			375		5,10,100.100.1	7 mary old Tromonout			
11. Cost year 3			375						
12. Cost year 4	1		675						
13. Cost year 5			375						
14. Total Additional Costs .		T -							
Sum lines 9 to 13 and enter line 14	on	\$ 3	3,375						
15. Total Course Cost. Add lines 8 and 14 and ente line 15	r on	\$ 2	281,475						
<ol> <li>Average cost over 5 years.</li> <li>Divide line 15 by 5 and enter line 16.</li> </ol>	on	\$ 2	281,475						
17. Potential students year 1		15	500	From Co	urse Informa	ation Summary Sheet			
<ul><li>18. Total potential students year</li><li>5 (multiply line 17 by 5. and enter on line 18)</li></ul>	k	75	00						
<ol> <li>Average cost per student yr</li> <li>(divide line 15 by line 15 enter on line 19)</li> </ol>		\$ 1	88	Round up	to the near	rest whole dollar			

### Gary P. Wratten Surgical Symposium Conversion Analysis

#### Gary P. Wratten Military Surgical Symposium

The course provides an opportunity for residents to present research efforts, update military surgeons on current surgical topics presented by national experts, and to encourage exchange between military surgeons.

#### Course Content Stability: Low

The majority of the course focuses on advances in the field and research findings. As such the content changes yearly

#### General Presentation Style: Lecture Lecture

The standard method of presentation was lecture. One presenter showed a Video of approximately ninety seconds length in support of his presentation.

#### instructional Alds

Power Point visuals, 35mm slide or overheads supported all presentations.

#### Hands-on Activities:

None

#### Degree of Instructional Interaction

Questions were encouraged and asked throughout the presentations. This was important as a learning technique to the resident presenters.

#### Relevant Instructional Value: High

Unlike most PPSCP courses, the resident (student) presenters were the primary focus rather than the audience at large. This conference permitted new residents to practice presenting their research findings to an audience of other residents and staff physicians. While only staff physicians received CME credit (19) the primary beneficiaries of this course were the presenters. All attendees are pre-selected, consequently the number of participants is limited and would continue to be limited if converted to distance learning.

#### Recommendation

#### Do not convert.

While it is technically possible to convert this course to a distance learning using Video Teletraining, it is recommended that the course not be converted because little if any cost savings could be expected. If the decision were made to convert the course, the only media that could support it would be Video Teletraining. Since the presenters currently make up approximately 54% of the audience, a unique approach would be needed. The course could be divided into three segments separated by a period of time (for example one week) between sessions. This would allow student presenters to only spend one day presenting plus one day travel time. Excluding cost, the value of having the opportunity to present face-to-face has to be considered. Presenting before a television camera is a different environment and may not provide the type of experience that would be of most benefit to the resident surgeon presenters.

#### DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: Gary P. Wratten Milita Symposium	ry Surgica	Co	ours	e Nui	mber:	A0116			
Instructional goals of the course the military to present their research e presented by nationally known experts especially in reference to readiness is:	fforts.b. s, and c. to	to update o encoura	milit ige e	ary s	urgeon	s on curr	ent	surgical topics	s in
2. Frequency of course offering p	er vear:	# 1						Yes	Na
Current length of course in hour		# 20	7		nyort	to DL?		res	No
4. Number of hours to be converted		# -0-	8		hance				X
5. Number of registered students	Ju	# 75	- 0	. 1_1	ii lai lee	· :			
6. Number of potential students the	nat	π 10	+						
could benefit from the course	iat	# 100							
		, 100							
9. If item 8 = Yes, Specify							••		
Technology	Level 1	Level	2	Lev	rel 3	Level	4		
WBT					-	20101			
CBT									
VTT	Low			Hig	h )	<b>(</b>			
Other				1.1.9					
Labor Hours Estimation Method	: Short _	Long		Sync	hrono	us X			
							<del></del>		
		Cost Dat	:a						
10. Total Cost Year One					\$ 76	,850			
11. Total Cost Year Two					\$ 68	,850			
12. Total Cost Year Three					\$ 68	,850			
13. Total Cost Year Four					\$ 68	,850			
<ol><li>!4. Total Cost Year Five</li></ol>					\$ 68	,850			
15. Total costs year 1 to 5 (Sun	n of lines	10 thro	ugh	14)	\$ 35	2,250			
16. Average cost, years 1 to 5 (div			5 b	y 5)	\$ 70	,450			
17. Total potential students over a									
(multiply the number of potent	ial studer	nts (item	6 al	oove)					
by 5.)  18. Average cost per potential s	4				# 50	JU			
period.	tuaent o	ver 5 ye	ar						
(divide the value in line 15 by	the value	in line 1	7)		\$ 70	5			
(arriae the value in into 10 by	tilo value	111 11110 1	' /		Ψ / Ο				
Additio	nal Hard	lware/Sc	ftw	are F	Requir	ed			
Item:						t per ur	nit	Total Cost	
						-			
Proposed Enhancement(s)	Cost			•					
	\$	V 100000							
	\$								
	\$								-
Total Enhancement Costs	\$			**		,			

Instructional Formats and Physical Training Requirements

	mondonal Formats and Fnysical Training Requirements									
	Course Name:	Course Number:								
	Gary P. Wratten Military Surgical Symposium	A0116								
ı										

of Course sing this structional ormat	Format	Description	Physical Presence Required?
52%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
48%	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

**Course Information Summary Sheet** 

Course Name: Gary P. Wratten Military Surgical Symposium

Course Number: A0116

Assigned reading

Length of course - number of hours of instruction: 20

Number of Registered Students: 75

Number of potential students that could benefit from this course: 100

**Instructional goals of the course:** a. To provide an opportunity for surgical residents and fellows in the military to present their research efforts. b. to update military surgeons on current surgical topics presented by nationally known experts, and c. to encourage exchange between military surgeons especially in reference to readiness issues and field surgery.

Frequency of Course Offering: once a year

**Continuing Education Credit Offered?** Only for attending staff physicians, not residents.

Number: 19

For each item listed, check ✓ row marked "Check" if observed or documented. Administrative Requirements Check Check Self pacing Detailed student records Group training Test Security On-demand availability Multiple test forms Open entry / open exit Training / Instruction Approach Lecture / Text Learning to Mastery Live Presenters (quest speakers) Practice / drill Self study Structured Review Demonstration Feedback on performance Exhibit Remediation Guided Discussion Group activities/collaborative tasks Simulation (roll play, in-basket) Problem solving exercises **Testing Types** Objective knowledge tests Performance test hardware Essav Oral testing Performance test - "paper" No testing/Student course eval Performance test - hardware **Graphics** 2D graphics still X 3D animation 3D graphics still 2D interactive animation 2D animation 3D interactive animation  $X^{1}$ Pre recorded video /films Communications Audio Open Discussion Indirect discourse Question and answer opportunities  $\overline{\mathsf{X}}$ 

<sup>&</sup>lt;sup>1</sup> One non-student presenter used ninety seconds of video in his presentation. Video will not be used to determine technology of level of interactivity.

**Course Technology Match Table** 

Course (Name) Gary P. Wratten Military Surgical Sym	Technologies					
Administrative Requirements	Check	CBT	WBT	VTT	1	
Self pacing	- Chicon				ļ	
Group training		To Market He		_		
On-demand availability		, 41				
Open entry / open exit				_		-
Detailed student records						
Test Security				-		-
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	v					<u> </u>
Live Presenters (guest speakers)	X				1	
Self study						_
Demonstration						
Exhibit Ovided Discourse			L.,		1	
Guided Discussion					ļ	
Simulation – knowledge based						
Simulation - hardware		·				
Problem solving exercises						
Learning to Mastery						
Practice / drill						
Structured Review				•		
Feedback on performance						
Remediation						
Group activities/collaborative tasks						
Testing Types						1
Objective knowledge tests						
Essay						
Performance test –"paper" exercise						
Performance test – hardware simulation						
Performance test – hardware		1 .		7		
Oral testing		2.0				
No testing/Student course evaluation						
Graphics	•					
2D graphics still	Х					ļ
3D graphics still						
2D animation						
3D animation						1
2D interactive animation			-			
3D interactive animation						<u> </u>
Pre recorded video /films						<del> </del>
Communications	I	1	1		<u> </u>	
Audio				T		<u> </u>
Indirect discourse					-	_
Assigned reading						+
Open Discussion						<del> </del>
Question and answer opportunities					1	

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

**Technology Interactivity Factors** 

Course Name: Gary P. Wratten Military Surgical Symposium	Course Number: A0116					
Synchronous Course	Video Te	eletraining				
Interactivity Factors	Level 1 Low	Level 2 High				
Administrative Requirements						
Self pacing		1967				
Group training		>>>>>				
On-demand availability						
Open entry / open exit						
Detailed student records						
Test Security		>>>>>>				
Multiple test forms		>>>>>				
Training / Instruction Approach						
Lecture / Text	X	>>>>>				
Live Presenters (guest speakers)	Λ	>>>>>				
Self study						
Demonstration		>>>>>				
Exhibit		>>>>>				
Guided Discussion						
Simulation – knowledge based		>>>>>				
Simulation - hardware						
Problem solving exercises						
Learning to Mastery						
Practice / drill						
Structured Review						
Feedback on performance						
Remediation						
Group activities/collaborative tasks						
Testing Types						
Objective knowledge tests						
Essay						
Performance test –"paper" exercise						
Performance test – hardware simulation						
Performance test – hardware						
Oral testing						
No testing/Student course evaluation		>>>>>				
Graphics						
2D graphics still	X	>>>>>>				
3D graphics still	^	>>>>>				
2D animation		>>>>>>				
3D animation		>>>>>				
2D interactive animation						
3D interactive animation						
Pre recorded video /films		>>>>>				
Communications						
Audio						
Indirect discourse		>>>>>				
Assigned reading		******				
Open Discussion		>>>>>				
Question and answer opportunities		X				

Shaded blocks indicates factors NOT supported by that level of technology Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

**Calculation of Synchronous Training Costs** 

Course Name: Gary P. Wratten Military Surgical Symposium	Course Number	er: A0116	
	Costs:		
Luboi	Session 1	Session 2	Session 3
Development Cost = (320 hrs.) x average hourly		00001011 2	000010110
rate (\$50)	\$ 5,350	\$ 5,350	\$ 5,300
Course Managers Studio Cost = (Total studio time		7 5,000	7 0,000
+ 1 hour for each day the course is offered) x			
number of times course is presented x average			
hourly rate (\$50)	\$ 400	\$ 450	\$ 300
Non-local Labor Cost = Number of non-local			
presenters ) x (length of the course in days +1) x			
number of times offered x average daily rate (\$400	\$ 1,600	\$ 2,400	\$ 2,400
Moderator	\$ 350	\$ 400	\$ 250
Local Labor Cost + Number of local presenters x			
average hourly rate (\$50) X 2 X number of times			
course is offered.	\$ 100	\$ 200	\$ 100
Total Labor Costs per session	\$ 7,800	\$ 8,800	\$ 8,350
Additional Cost (any co	osts not captured	above)	
Total Per Diem =			
(length of course in days plus one			
travel day x number of non-local presenters) x (local daily per diem rate) x number of time the			
course will be presented.	\$ 3,740	¢ 5 440	#0.700
Total Airfare = (Average Round Trip Airfare x	φ 3,740	\$ 5,440	\$2,720
number of non-local presenters) x number of times			
the course will be presented.	\$ 11,000	\$ 16,000	\$ 8000
Total dollar amount paid as honorariums	\$ 1,667	\$ 1,667	\$ 1,666
(Other)	\$ 16,407	\$ 23,107	\$ 12,386
(Other)	Ψ 10,407	Ψ 23, 107	ψ 12,300
Total Estimated Cost: Add Total Per Diem,	Airfare, Labor C	Costs, and Addition	onal Costs
Total Labor Costs	\$ 24,950		
Total Per Diem	\$ 11,900		
Total Airfare	\$ 35,000		
Total paid as honorariums	\$ 5,000		
(other)	\$ -0-	71.77	
TOTAL COURSE COST Year 1	\$ 76,850		
Cost Per Student = Total course costs divided by			
potential number of students	\$ 769		
potential number of students			

- Student presenters not included in labor costs.
   Cost of a Moderator included.
- 3. Per diem includes costs of student and non student presenters.
- 4. Air fair estimated at \$1000 round trip.
- 5. Total honorariums of \$5000 divided between the three sessions.
- 6. While the possible number of attendees is 100 almost half may be student presenters. Since part of the "learning" includes answering questions the focus is on the presenter (many questioners to one learner) rather than the audience (one instructor to many learners) the need for a small class is not as significant as it would be in a typical class situation.

Cost Estimate for a Single Course Over a Five Year Period

Cost Estimate for a Single Course Name: Gary P. Wratten Mil Symposium					urse Numb	er: A0116	
Symposium							
Technology Selected	Level	1	Level	2	Level 3	Level 4	
WBT	<del></del>						
CBT							
VTT	Low			-	High X		
Other							
Cost Factors			Values			Sourc	`^
1. Labor hours year 1		4	99			Ooure	, <del>,</del>
Labor hours year 2			39		Course T	echnology N	Match Table
3. Labor hours year 3			39				vity Factors Table
4. Labor hours year 4			39		- , , , , , , , ,	gy meraen	ny radiora rabio
5. Labor hours year 5			39				
6. Subtotal			355				
7. Average labor cost		\$ 5					
8. Total labor Cost over 5 yr. per	iod.						
Multiply line 6 by line 7		\$ 9	2,750				
Additional Development/ Delive	ery Co	st	By Yea	r			
9. Cost year 1			51,900		Data to S Workshee	upport Cost et	Analysis
10. Cost year 2		\$ 5	1,900				
11. Cost year 3		\$ 5	51,900				
12. Cost year 4		\$ 51,900					
13. Cost year 5		\$ 5	51,900				
14. Total Additional Costs .							
Sum lines 9 to 13 and enter of line 14	n	\$ 2	259,500				
15. Total Course Cost. Add lines 8 and 14 and enter line 15	on	\$ 3	352,250				
<ol> <li>Average cost over 5 years.</li> <li>Divide line 15 by 5 and enter of line 16.</li> </ol>	on	\$ 7	'0,450				
17. Potential students year 1		10	00		From Cou Sheet	ırse Informa	ation Summary
18. Total potential students year 1 5 (multiply line 17 by 5. and enter on line 18)		50	00				
<ul><li>19. Average cost per student yr.</li><li>5. (divide line 15 by line 18 enter on line 19)</li></ul>		\$ 7	705		Round up	to the near	est whole dollar

Internal Medicine Conversion Analysis

#### NTERNAL MEDICINE COURSE

#### Course Purpose:

To present the latest research and developments in the field of internal medicine.

#### Course Content Stability: Low

Given that this course presents the latest developments in the field of internal medicine, the content material changes from year to year.

#### General Presentation Style: Lecture

This course could best be described as a "conference". That is, the information was delivered using a lecture format as the primary vehicle in which one instructor presented information to many learners.

#### Instructional Aids

Heavy reliance on 35 mm and PowerPoint slides outlining the lecture, or presenting graphs showing research results and pictures of symptoms associated with various conditions. In addition, many of the instructors provided handouts with supplemental information relevant to the topic they were addressing.

#### Hands-on Activities

None

#### Degree of Instructional Interaction:

During the plenary sessions, students were instructed to hold their questions until the end. The instructors were then told to meet with students with questions at a particular location during breaks. There were opportunities for the students to ask questions during the breakout sessions. and the degree to which this interaction was engaged in varied from instructor to instructor, and from student to student. In general, these questions concerned points of clarification, and served to allow the learner to better understand how to apply the information in a real world situation. The question/answer periods were generally limited to an exchange between an individual student and the instructor, such that the interaction did not expand into a general discussion period involving several students.

#### Relevant Instructional Value: Moderate

This course provides a significant amount of information, but with a goal of making the listeners familiar with the topic. Should the students wish to apply any of the information that was provided, it is doubtful that this could be wisely accomplished without further researching the topic independently. The main thing to be gained from attending this course (according to the POC) was an opportunity to network, and to make contacts among peers.

#### Recommendation.

#### Convert the course to Web Based Training supplemented by an Electronic Journal

The internal Medicine course was delivered in a standard large conference format, a plenary session in the morning and breakout sessions in the afternoon where the students could attend most of the sessions being conducted as they wished. Some "workshop" sessions were by invention only, which focused on such topics as American College of Physicians (ACP) chapter business, and Army internal medicine residency curriculum development. Other sessions identified as workshops were actually panel discussions.

Considering the plenary and breakout sessions, the conference provided a total of 72+ hours of presentations. Some 116 fifteen minute presentations were included for a total of 29 hours of fifteen minute presentations. Of the 12 hours of time devoted to the plenary sessions some 5 hours were devoted to ACP business, 10 fifteen minute presentations of papers submitted for competition, and various awards and recognition of service.

A maximum of 21 Continuing Medical Education (CME) credit could be earned at this conference.

Procedural Recommendations: This course can be converted to Web Based Training at a very low cost given the following:

- 1. All the fifteen minute presentations as well as some six (6) hours of longer presentation which do not specifically address the purpose of the course should be delivered through an electronic journal.
- 2. Closed workshops (working groups), which are not intended for student participation, cannot be converted to distance learning and another venue should be found for these activities.

Excluding the above items some 30 hours of content remains which includes the common core (plenary sessions) and the breakouts (specialty sessions) Because of the 10 specialty sessions (which can change in number from year to year), the use of VTT is not recommended. The course would need to be offered multiple times, or the specialty sessions would need to be offered sequentially which would create a significant scheduling problem in identifying which sites are needed and when. The large number of potential participants (800) who are distributed worldwide, would add to the scheduling problem. While the per student cost of VTT is less than Web Based Training (\$40 vs. \$68) if presented only once, the administrative and scheduling problems would very likely result in a much lower attendance and completion rate.

The use of a Web Based Training approach allows for self-registration, and open entry/open exit use. This would significantly reduce the administrative burden as well as being more adaptable to the work environment. Also the courseware could be easily converted to CBT Multimedia, at minimal cost, for any participants who do not have Internet access.

The 30 instructional hours recommended for conversion can be assigned by the Program Officer to a common core or specialty option as appropriate.

Conversion of each fifteen-minute presentation and other papers to an electronic journal should take approximately 45 minutes, to include scanning, formatting, and indexing. Total labor time for this task should be approximately 92 hours.

The conversion of this course should result in a yearly 70% saving over current costs. This saving is approximately equal to the current student transportation cost, which is some 75% of current expenditures.

# **DISTANCE LEARNING CONVERSION REPORT FORM**

Course Name: 14th Annual ACP/Arr Meeting: Internal Medicine	ny Region	al Coi	ırse	Num	ber:	A0126			
					-				
Instructional goals of the cou of internal medicine.	<b>irse</b> : Το μ	oresent the	late	est res	search	and develo	oments i	n the fi	eld
2. Frequency of course offering p	er vear	# 1	I					Yes	No
Current length of course in hour		# 72	7.	Cor	nvert	to DL?		X	INO
Number of hours to be converted.		# 30	8.		nance			$\frac{\lambda}{X}$	
5. Number of registered students	-	# 300	<u> </u>	<u></u>	101100	•			
6. Number of potential students the	at	000							
could benefit from the course		# 800							
			I			.,			l
9. If item 8 = Yes, Specify: Pr	oduction	of an Ele	ectr	onic	Jour	nal			
Technology	Level 1			Leve		Level 4			
WBT	Х								
CBT					-				
VTT	Low			High					-
Other									
Labor Hours Estimation Method	: Short _	X_ Long		Sync	hron	ous			
	(	Cost Data							
10. Total Cost Year One						,950			
11. Total Cost Year Two					\$ 53,950				
12. Total Cost Year Three					\$ 53,950				
13. Total Cost Year Four					\$ 53,950				
!4. Total Cost Year Five		40.4		4.6		,950			
15. Total costs year 1 to 5 (Sun	1 of lines	10 throu	gh	14)	\$ 26	9,750			
16 Average cost veers 1 to E (di	مديام درمان	in lin a 41	- 1		Φ. Γ.Ο	050			
<ul><li>16. Average cost, years 1 to 5 (div</li><li>17. Total potential students over a</li></ul>			рру	(5)	\$ 53	,950			
(multiply the number of potent			ah	, (CV)					
by 5.)	iai stuuci	its (item c	au	iove)	# 40	000			
18. Average cost per potential s	tudent o	ver 5 vea	r		π <del>-</del> τ υ				
period.		vo. o you	•						
(divide the value in line 15 by	the value	in line 17	)		\$ 68				
			,						P. S.
Additio	nal Hard	ware/Sof	twa	re R	equir	ed	.,		
Item:					Cos	t per unit	Total (	Cost	
					77444				
Proposed Enhancement(s)			l						
Proposed Enhancement(s)  Electronic Journal  \$ 4,600 per year									•
	\$	1							
	\$								
Total Enhancement Costs	·	over five	vea	ars					
	. ,		,	<del>-</del>					
						1 2000	The state of the s	(	

Instructional Formats and Physical Training Requirements

Course Name:

14th Annual ACP/Army Regional Meeting: Internal A0126

f Course ng this ructional mat	Format	Description	Physical Presence Required?				
52%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No				
5%	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No				
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No				
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?				
3%	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.					
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?				
40%	Student Verbal Presentations	Students present verbal information to the larger group.	?				
	Student Procedural Presentations	Students present procedural information to the larger group.	?				
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?				
	Shop Activity	Hands-on technical tasks/procedures.	?				
3100	Lab Activity	Hands-on laboratory tasks/procedures.	?				

# **Course Information Summary Sheet**

Course Name: 14th Annual ACP/Arn	ny Regional	Meeting: Internal Medicine	
Course Number: A0126			
Length of course - number of hours	of instruct	ion: 72	
Number of Registered Students: 300			
Number of potential students that co	ould benefit	t from this course: 800	
<b>Instructional goals of the course:</b> To of internal medicine.	present the	e latest research and developments in t	he field
Frequency of Course Offering: Once	e a year		
Continuing Education Credit Offered	l? ves	Number: 21	
The state of the s	11 y 00	Humber: 21	
For each item listed, check ✓ row	v marked	"Check" if observed or documen	ted.
Administrative Requirements	Check		Check
Self pacing		Detailed student records	
Group training		Test Security	<b>†</b>
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	X	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test "paper"		No testing/Student course	X
Performance test – hardware			
Graphics			
2D graphics still	Х	3D animation	1
3D graphics still		2D interactive animation	1
2D animation		3D interactive animation	
		Pre recorded video /films	
Communications			
Audio		Open Discussion	
Indirect discourse		Question and answer	
Assigned reading			

**Course Technology Match Table** 

Course (Name) 14th Annual ACP/Army Regional Meeting:			Technologies						
Internal Medicine	,								
Administrative Requirements	Check	CBT	WBT	VTT					
Self pacing									
Group training									
On-demand availability									
Open entry / open exit									
Detailed student records									
Test Security									
Multiple test forms						***			
Training / Instruction Approach									
Lecture / Text	Х								
Live Presenters (guest speakers)									
Self study	,								
Demonstration						-			
Exhibit			<del></del>						
Guided Discussion					-				
Simulation – knowledge based									
Simulation - hardware			1000			<del> </del>			
Problem solving exercises			i i						
Learning to Mastery									
Practice / drill	-					-			
Structured Review									
Feedback on performance									
Remediation									
Group activities/collaborative tasks									
Testing Types									
Objective knowledge tests		1	T		T				
Essay	-								
Performance test –"paper" exercise									
Performance test – paper exercise  Performance test – hardware simulation			-						
Performance test – hardware									
Oral testing  No testing/Student course evaluation	V								
Graphics	X	l							
2D graphics still		1	1		T				
3D graphics still	X		-						
2D animation				_					
3D animation									
· · · · · · · · · · · · · · · · · · ·									
2D interactive animation  3D interactive animation									
Pre recorded video /films		<u> </u>	L						
Communications			T		Т				
Audio									
Indirect discourse	ļ								
Assigned reading									
Open Discussion									
Question and answer opportunities									

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Asynchronous Course	WEB Based Training									
Interactivity Factors	Level 1	Level 2	Level 3	Level 4						
Administrative Requirements										
Self pacing		>>>>>>	>>>>>>	>>>>>						
Group training										
On-demand availability		>>>>>>	>>>>>>	>>>>>						
Open entry / open exit		>>>>>>	>>>>>>	>>>>>>						
Detailed student records		>>>>>	>>>>>>	>>>>>>						
Test Security		>>>>>>	>>>>>>	>>>>>>						
Multiple test forms			>>>>>	>>>>>						
Fraining / Instruction Approach										
Lecture / Text		>>>>>	>>>>>	>>>>>						
Live Presenters (guest speakers)	Х									
Self study		>>>>>	>>>>>	*****						
Demonstration				>>>>>						
Exhibit			>>>>>>	>>>>>						
Guided Discussion			>>>>>	>>>>>						
Simulation – knowledge based			>>>>>	>>>>>						
Simulation - hardware		•								
Problem solving exercises			>>>>>>	>>>>>						
Learning to Mastery		>>>>>>	>>>>>	>>>>>						
Practice / drill		>>>>>	>>>>>	>>>>>						
Structured Review	_ ''			>>>>>						
Feedback on performance			>>>>>	>>>>>						
Remediation			>>>>>	>>>>>						
Group activities/collaborative tasks		* .								
Testing Types	1	4	<b></b>	γ						
Objective knowledge tests		>>>>>>	>>>>>	>>>>>						
Essay										
Performance test – "paper" exercise			>>>>>>	>>>>>						
Performance test – hardware simulation										
Performance test – hardware										
Oral testing										
No testing/Student course evaluation	X	>>>>>>	>>>>>	>>>>>						
Graphics										
2D graphics still	X	>>>>>>	>>>>>	>>>>>						
3D graphics still			>>>>>	>>>>>						
2D animation			>>>>>	>>>>>						
3D animation				>>>>>						
2D interactive animation				>>>>>						
3D interactive animation				, , , , ,						
Pre recorded video /films			>>>>>>	>>>>>						
Communications										
Audio		>>>>>	>>>>>	>>>>>						
Indirect discourse										
Assigned reading		>>>>>>	>>>>>	>>>>>						
Open Discussion										
Question and answer opportunities										

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Asynchronous Course	Computer Based Training									
Interactivity Factors	Level 1	Level 2	Level 3	Level 4						
Administrative Requirements			:							
Self pacing		>>>>>>	>>>>>>	>>>>>						
Group training	1									
On-demand availability		>>>>>>	>>>>>>	>>>>>						
Open entry / open exit		>>>>>	>>>>>>	>>>>>						
Detailed student records										
Test Security										
Multiple test forms			>>>>>>	>>>>>						
Training / Instruction Approach										
Lecture / Text	X	>>>>>>	>>>>>>	>>>>>						
Live Presenters (guest speakers)	_ ^									
Self study		>>>>>	>>>>>	>>>>>						
Demonstration			>>>>>>	>>>>>>						
Exhibit			>>>>>>	>>>>>						
Guided Discussion			7777777	222222						
Simulation – knowledge based			>>>>>							
			>>>>>>	>>>>>						
Simulation - hardware	1									
Problem solving exercises		>>>>>>	>>>>>>	>>>>>						
Learning to Mastery		>>>>>	>>>>>	>>>>>						
Practice / drill		>>>>>	>>>>>	>>>>>						
Structured Review			>>>>>	>>>>>						
Feedback on performance		>>>>>	>>>>>>	>>>>>						
Remediation			>>>>>	>>>>>						
Group activities/collaborative tasks										
Testing Types	,	T	T							
Objective knowledge tests		>>>>>	>>>>>	>>>>>						
Essay										
Performance test – "paper" exercise			>>>>>	>>>>>						
Performance test – hardware simulation				>>>>>						
Performance test – hardware										
Oral testing										
No testing/Student course evaluation	X	>>>>>	>>>>>	>>>>>						
Graphics	T		· · · · · · · · · · · · · · · · · · ·	····						
2D graphics still	Х	>>>>>	>>>>>>	>>>>>						
3D graphics still			>>>>>>	>>>>>						
2D animation			>>>>>>	>>>>>						
3D animation				>>>>>						
2D interactive animation				>>>>>						
3D interactive animation										
Pre recorded video /films			>>>>>	>>>>>						
Communications	1									
Audio		>>>>>	>>>>>	>>>>>						
Indirect discourse										
Assigned reading		>>>>>	>>>>>	>>>>>						
Open Discussion										
Question and answer opportunities	200									

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support tha factor.

Synchronous Course	Video Teletraining						
Interactivity Factors	Level 1 Low	Level 2 High					
Administrative Requirements							
Self pacing							
Group training		>>>>>>					
On-demand availability							
Open entry / open exit							
Detailed student records							
Test Security		>>>>>>					
Multiple test forms		>>>>>					
Training / Instruction Approach							
Lecture / Text	X	>>>>>					
Live Presenters (guest speakers)		>>>>>					
Self study							
Demonstration		>>>>>					
Exhibit		>>>>>					
Guided Discussion							
Simulation – knowledge based		>>>>>					
Simulation - hardware							
Problem solving exercises							
Learning to Mastery							
Practice / drill							
Structured Review							
Feedback on performance	-						
Remediation							
Group activities/collaborative tasks	-						
Testing Types							
Objective knowledge tests							
Essay							
Performance test -"paper" exercise							
Performance test – hardware simulation							
Performance test hardware							
Oral testing							
No testing/Student course evaluation	Х	>>>>>					
Graphics		I					
2D graphics still	X	>>>>>					
3D graphics still		>>>>>					
2D animation		>>>>>					
3D animation		>>>>>					
2D interactive animation							
3D interactive animation							
Pre recorded video /films		>>>>>>					
Communications	J	L					
Audio		>>>>>>					
Indirect discourse							
Assigned reading		>>>>>>					
Open Discussion							
Question and answer opportunities							

Shaded blocks indicates factors NOT supported by that level of technology Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

**Short Worksheet: Development Time** 

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction Course Name: 14th Annual ACP/Army Regional Meeting: Internal Medicine Media: Web Based Training Development Implementation Analysis Design Sums Percentage of Time Spent by Task Type .40 .20 .25 .15 by Level Multiply line 1 by average \* hours\_ 100 Average hrs. per 40 25 20 15 phase Adjustments \*\* for hours per phase Use 1 \_ for added .3 .5 .8 .3 time and .\_ for less time Adjusted hrs. per phase. Multiply line 4 12 10 20 4.5 3 by line 4. Total Labor Hours -47 sum across line 5

<sup>\*</sup> Average hours per hour of instruction

<sup>\*\*</sup> Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

**Short Worksheet: Development Time** 

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction Course Name: 14th Annual ACP/Army Regional Meeting: Internal Medicine Media: Computer Based Training Level: 1 Analysis Design Development | Implementation Sums Percentage of Time Spent by Task Type 1 .40 .20 .25 .15 by Level Multiply line 1 by i galak average \* hours\_\_\_100\_ Average hrs. per 3 40 20 25 15 phase Adjustments \*\* for hours per phase Use 1\_ for added .3 .5 .8 .3 time and \_ for less Adjusted hrs. per phase. Multiply line 3 12 10 20 4.5 by line 4. Total Labor Hours -47

sum across line 5

Average hours per hour of instruction

<sup>\*\*</sup> Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

# **Course Cost Estimation Worksheet**

Course Cost Estimation Worksheet  Course Cost Estimate Worksheet: Web Based Training								
1		Course Number: /						
1	Write the sum from Refined Estima estimated number of hrs. per hr. of		Hrs 47					
2	Average hourly labor cost in dollars	3	\$ 50					
3	Multiple line 1 by line 2 and put the	results on line 3.	\$ 2350					
4	Actual number of classroom equiva converted or developed.		Hrs. 30					
5	Compression: If conversion to asymmultiply line 4 by .7 (seven tenths) on line 5. If not a conversion to asy skip line 5	Hrs. 21						
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery <b>OR</b> line 3 by conversion to asynchronous deliver on line 6.	y line 4 if not a	\$ 49,350					
	Do not use lines 7 to 12 for an	y costs that are to	be shared.					
7	Infrastructure Costs		\$					
8	Recurring Costs		\$					
9	Delivery Labor Costs		\$					
10	Travel Costs		\$					
11	Miscellaneous Costs		\$					
12	Add line 7 to 12		\$					
13	Total Cost - Add lines 6 and 12.		\$ 49,350					
14	Number of potential students		# 800					
15	Average Cost Per Student Divide I	ine 13 by line 14	\$ 62					
	THE STATE OF THE S	31 <sup>1</sup> 2						

# **Course Cost Estimation Worksheet**

Course Cost Estimate Worksheet: Computer Based Training								
		.0126						
1	Write the sum from Refined Estima estimated number of hrs. per hr. of	Hrs 47						
2	Average hourly labor cost in dollars		\$ 50					
3	Multiple line 1 by line 2 and put the	results on line 3.	\$ 2350					
4	Actual number of classroom equiva converted or developed.	lent hours to be	Hrs. 30					
5	Compression: If conversion to asynmultiply line 4 by .7 (seven tenths) on line 5. If not a conversion to asy skip line 5	Hrs. 21						
6	Multiply line 3 by line 5 if a conversion asynchronous delivery <b>OR</b> line 3 by conversion to asynchronous deliver on line 6.	\$ 49,350						
	Do not use lines 7 to 12 for any	costs that are to	be shared.					
7	Infrastructure Costs		\$					
8	Recurring Costs		\$					
9	Delivery Labor Costs		\$					
10	Travel Costs		\$					
11	Miscellaneous Costs		\$					
12	Add line 7 to 12		\$					
13	Total Cost - Add lines 6 and 12.		\$ 49,350					
14	Number of potential students		# 800					
15	Average Cost Per Student Divide I	ine 13 by line 14	\$ 62					

**Calculation of Synchronous Training Costs** 

Course Name: 14th Annual ACP/Army Regional Meeting: Internal Medicine	Course Number: A0126							
Labor Costs:								
Development Cost = (320 hrs.) x average hourly								
rate (\$50)	\$ 16,000							
Course Managers Studio Cost = (Total studio time								
+ 1 hour for each day the course is offered) x								
number of times course is presented x average								
hourly rate (\$50)	\$ 1650							
Non-local Labor Cost = Number of non-local								
presenters ) x (length of the course in days +1) x								
number of times offered x average daily rate (\$400	\$ 4000							
Local Labor Cost + Number of local presenters x								
average hourly rate (\$50) X 2 X number of times								
course is offered.	\$2800							
Total Labor Costs	\$ 24,450							
A d d'étique d O 4 /								
	osts not captured above)							
Total Per Diem = (length of course in days plus one								
travel day x number of non-local presenters) x								
(local daily per diem rate) x number of time the								
course will be presented.	\$ 1700							
Total Airfare = (Average Round Trip Air Fair x	\$ 1700							
number of non-local presenters) x number of times								
the course will be presented.	\$ 1000							
Total dollar amount paid as honorariums	\$ -not provided-							
(Other) electronic journal	• • • • • • • • • • • • • • • • • • • •							
(Other) electronic journal	\$4,600							
Total Estimated Cost: Add Total Per Diem,	Air Fair, Labor Costs, and Additional Costs.							
Total Labor Costs	\$ 24,450							
Total Per Diem	\$ 1,700							
Total Airfare	\$ 1,000							
Total paid as honorariums	\$ -not provided-							
(other) electronic journal	\$ 4,600							
TOTAL COURSE COST Year 1	\$ 31,750							
Cost Per Student = Total course costs divided by	,							
potential number of students	\$ 40							

#### Note:

- The course, if offered sequentially, would require 3.75 days assuming 8 hours attendance per day.
- While the course lists four days, the first day is simply registration which can be done on the morning of the second day.
- Number of presenters determined by assuming one hour per presentation.
- Number of non-local presenters was determined as an equivalent percentage of the current number of non-local presenters excluding fifteen minute presentations and other presentations not recommended for conversion.
- Information on instructor travel not provided in Administrators Survey. No coast to coast travel noted. Assume \$500 round trip.

Cost Estimate for a Single Co										
Course Name: 14th Annual ACP/Army Regional			ional	Cc						
Meeting: Internal Medicine										
					1981					
Technology Selected	Leve	1 1	Level	2	Level 3	Lovel 4				
recillology Selected	Leve		Level	2	Level 3	Level 4				
WBT	X									
CBT										
VTT	Low				High					
Other										
					1	L				
Cost Factors			Values			So	urce			
1. Labor hours year 1		9	87							
2. Labor hours year 2		9	87		Course T	echnology N	Match Table			
3. Labor hours year 3		9	87				≀ity Factors Table			
4. Labor hours year 4		9	87							
5. Labor hours year 5		987								
6. Subtotal		4934								
7. Average labor cost		\$ 50								
	8. Total labor Cost over 5 yr. period.		246 750			70.000				
Multiply line 6 by line 7		\$ 246,750			_					
Additional Development/ Deli	very Co			r						
9. Cost year 1		\$ 4,600			Data to Support Cost Analysis Worksheet					
10. Cost year 2		\$ 4,600								
11. Cost year 3		\$ 4,600			Cost for production of Electronic Journal					
12. Cost year 4		\$ 4,600								
13. Cost year 5		\$ 4,600								
14. Total Additional Costs .										
Sum lines 9 to 13 and enter	on	\$ 2	23,00							
line 14										
15. Total Course Cost.		φ.	200 700							
Add lines 8 and 14 and ente	:1 011	Φ 4	269,750							
16. Average cost over 5 years.										
Divide line 15 by 5 and ente	ron	¢ #	53,950							
line 16.	1 011	φί	55,950							
17. Potential students year 1		80	00		From Cor	irse Informa	ation Summary Sheet			
18. Total potential students year	r 1 to				1 10111 000	n Se HIIOHHE	aton Summary Sneet			
5 (multiply line 17 by 5. and			00							
enter on line 18)			4000							
19. Average cost per student y	r. 1 to									
5. (divide line 15 by line 1		\$ 6	88		Round up	to the near	est whole dollar			
enter on line 19)					and ap 12 and near out miles delia					

# Multidisciplinary Approach to Head and Neck Trauma Conversion Analysis

# MULTIDISCIPLINARY APPROACH TO HEAD AND NECK TRAUMA

#### **Course Purpose:**

Gather specialists concerned with trauma to the head and neck. Discuss recent techniques, research and other critical issues.

#### **Course Content Stability:**

Low

Topics will change yearly. Content and topics will change depending on current research and developments.

#### **General Presentation Style:**

Distributive

The information was delivered using a lecture format as the primary vehicle in which one (1) instructor presented information to many learners.

#### Instructional Aids:

Heavy reliance on 35 mm slides. In addition, most presenters provided handouts with supplemental information relevant to the topic they were addressing.

#### Hands-on Activities:

None

# **Degree of Instructional Interaction:**

The presentations moved quickly. There was no opportunity for the students to ask questions during the presentations. At the end of each half-day, the students could ask questions of available speakers in a question and answer session. The question/answer periods were limited by the availability of the presenters at the question period.

#### **Relevant Instructional Value:**

Hiah

Information presented was relevant to both peacetime and wartime activities of the military participants. The course was designed for and presented to physicians involved in the care of patients who have sustained trauma to the head and neck, primarily otolaryngologists/ear, nose and throat physicians. Content was not military specific.

# **Recommendation:**

Based on information received from course personnel, do not convert to Distance Learning. See Note below.

Technically, this course is a good candidate for conversion to Web based or computer based training. However, if the cost is to be amortized only among the small number of military participants, it would not be cost-effective. An estimated 45 civilian attendees paid a registration fee of \$150 and military attendees paid a \$75 registration fee. Fourteen vendors (pharmaceutical companies, book publishers, etc.) provided "monetary effort" of approximately \$500 each. Vendor funds were used for daily breakfast buffets during which a speaker presented and breaktime snacks. Considering civilian registration and vendor contributions, a total of approximately \$13,750 in funds above and beyond those provided through the PPSCP were made available to conduct the course. (Military registration was not considered in this figure, because it was reimbursed to the participants when they filed their travel vouchers.) Because vendor contribution might be limited when converting the course, and potential for collection of civilian registration fees would be eliminated, it appears that the relative costs of conversion would increase. However, if it were not held in residence, there would be no requirement for snacks and breakfast. Web-based or computer-based training is estimated to be \$21,385 per year, which is approximately \$6,000 per year more than the estimated current cost of \$16,000 (not counting food and snacks). VTT development would not be possible at Madigan Army Medical Center since it is not a Distance Learning Center and could not originate VTT training. Costs for conversion to Web-based training at Level 1 are provided on the following sheets.

NOTE: The content and structure of this course is ideal for conversion to Web-based training. The recommendation not to convert was made based on the cost analysis data provided by the Course Project Officer that results in a per-student conversion figure that is not cost-effective. The potential target audience identified by the Project Officer was something under 100 (apparently reflecting only the size of the military ENT physician specialty group). However, the material presented (primarily new techniques and procedures for dealing with acute and long-term treatment of injuries to the head and neck) is applicable to a much larger audience. This includes military and civilian physicians practicing worldwide in Trauma/ Emergency Department settings, Oral and Plastic Surgeons, Dentists, and other professional and paraprofessionals dealing with this patient population. In fact, paramedics from the Madigan Emergency Department were invited to attend this course. If this wider audience is considered, the perstudent cost drops dramatically and would most certainly support conversion to distance learning.

# DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: Multidisciplinary Approach to Head and Neck Trauma  Course Number: A0156										
1. Instructional goals of the course: Gather specialists concerned with trauma to the head and neck. Discuss recent techniques, research and other critical issues.										
2. Frequency of course offering per year: # 1 Y										
3. Current length of course in hour		# 13	- +-	7. Cor	nvert f	to DL?			Yes	No X
Number of hours to be converted.		# 0			nance					X
5. Number of registered students	-	# 88		J. <u>L.</u> 11	101100	•		****		
6. Number of potential students th	at									
could benefit from the course		# 12	5							
										·
9. If item 8 = Yes, Specify:										
Technology	Level 1	Le	vel 2	Leve	el 3	Level	4			
WBT										
CBT						L				
VIT	Low			High	]	r				
Other		Ш		Д.,		<u> </u>				
Cost Estimate for							/el ′	1		
Labor Hours Estimation Method:	Snort_	<u>Х_ L</u>	ong_	Sync	hron	ous				
		Cost	Data					· · · · · · · · · · · · · · · · · · ·		
10. Total Cost Year One		COST	Data		<b>©</b> 24	205				-
11. Total Cost Year Two					\$ 21,385 \$ 21,385					
12. Total Cost Year Three					\$ 21,385					
13. Total Cost Year Four	· "				\$ 21,385					
! 4. Total Cost Year Five			• • • •		\$ 21,385				·	
15. Total costs year 1 to 5 (Sum	of lines	10 tl	hroua	h 14)	\$ 106,925					
16. Average cost, years 1 to 5 (div	ide value	in lir	ne 15 k	by 5)	\$ 21	,385				
17. Total potential students over a				<u> </u>						
(multiply the number of potent	ial studer	nts (it	em 6 a	above)						
by 5.)	····				# 62	.5		#310	(military	<u>')                                    </u>
18. Average cost per potential s	tudent o	ver 5	-year							
period.	منامير مطا	:_ !:_	- 47\		. 47	4 00		6044	04 (	4
(divide the value in line 15 by t	ine value	ın ım	e 1/)		\$ 17	1.08		\$344.	91 (mili	tary)
Additio	nal Hard	lware	Soft	vare R	equir	ed				
Item:	iiai iiai u	waic	700114	vaic it		t per ur	nit	Total	Cost	, .
Ttom:	~~~				000	t per ur		. Otal		-
Proposed Enhancement(s)	Cost				L					
opossa miniansonionals)	\$				·			····	-	
	\$						-	<del></del>		
\$										
Total Enhancement Costs	\$				<del></del>	W. 10				
	₹									
	an i			erroment was the same of	ar in the same and a second	The state of the s				<b>724</b> 72
		Section .	. 4		A. 7				400	

Instructional Formats and Physical Training Requirements

Course Name: Multidisciplinary Approach to Head Course Number: A0156

and Neck Trauma

% of Course Using this Instructional Format	Format	Description	Physical Presence Required?
100%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	7
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	<b>?</b> // (*)
	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

# **Course Information Summary Sheet**

Course Name: Multidisciplinary Approach	to Head	and Neck Trauma		
Course Number: A0156				
Length of course - number of hours of it	nstructi	on: 13		
Number of Registered Students: 88 (app				
			!!	
Number of potential students that could				
Instructional goals of the course: Gather neck. Discuss recent techniques, research	speciali and oth	sts concerned with trauma to the head er critical issues.	and	
Frequency of Course Offering: Once a year	ear			
Continuing Education Credit Offered?	/es	Number: 13		
For each item listed, check ✓ row ma	arkad "	Chack" if observed or document	had	
Administrative Requirements C		Check in Observed of document	Check	
Self pacing		Detailed student records	Unicon	
Group training		Test Security	<del> </del>	
On-demand availability		Multiple test forms		
Open entry / open exit			<u> </u>	
Training / Instruction Approach				
Lecture / Text	X	Learning to Mastery		
Live Presenters (guest speakers)		Practice / drill		
Self study		Structured Review		
Demonstration		Feedback on performance		
Exhibit		Remediation		
Guided Discussion		Group activities/collaborative tasks		
Simulation (roll play, in-basket)				
Problem solving exercises				
Testing Types			131/444	
Objective knowledge tests	Î	Performance test hardware		
Essay		Oral testing		
Performance test –"paper"		No testing/Student course eval.	X	
Performance test – hardware				
Graphics I				
2D graphics still	X	3D animation		
3D graphics still		2D interactive animation		
2D animation		3D interactive animation	1	
	<u> </u>	Pre recorded video /films	X	
Communications				
Audio		Open Discussion		
Indirect discourse		Question and answer		
Assigned reading				
	11,700,000,000			
그들만 원소부의 어린 문양이는 일본했다며 화물을 다 보다고를				

Note: Video was used during one thirty minute presentation (>4%) and will not be used to determine technology or level of interactivity.

**Course Technology Match Table** 

Course Multidisciplinary Approach to Head and Neck Trauma			Technologies					
Administrative Requirements Check			CBT WBT VTT					
Self pacing	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	a callet ille ma disc	and the state of the state of	reals Collective	in decomply with			
Group training	<u> </u>					<b></b>		
On-demand availability					ļ	<u> </u>		
Open entry / open exit		ļ						
Detailed student records								
Test Security		-			<u> </u>			
Multiple test forms	-					<b></b>		
raining / Instruction Approach	y Quite	H Waterberg			i i i i i i i i i i i i i i i i i i i			
Lecture / Text	X				viralti	lu lini		
Live Presenters (guest speakers)	<del>  ^</del>				l			
Self study		1	1			<u> </u>		
Demonstration					<del> </del>			
Exhibit								
Guided Discussion								
Simulation – knowledge based	<del> </del>			1		_		
Simulation - hardware	<u> </u>					<u> </u>		
Problem solving exercises	<del> </del>							
Learning to Mastery		ļ				<u> </u>		
Practice / drill	<del> </del>	ļ				ļ		
Structured Review								
Feedback on performance	<del> </del>	-	ļ			-		
Remediation	<del></del>	<del> </del>				├		
Group activities/collaborative tasks	<del> </del>							
·		77	aan in die deel de lande de l Lande de lande de la	15 5 25 L 5 5 5 J	F - 1233 - 1999 - 209 - 20	era Tali		
Objective knowledge tests						elgi, ef 17		
Essay						<del> </del>		
Performance test –"paper" exercise			I			<del> </del>		
Performance test – paper exercise  Performance test – hardware simulation	-	ļ	<u> </u>			1		
	1					<del> </del>		
Performance test – hardware  Oral testing						<del> </del>		
	<del> </del>	1	1	,		<del> </del> -		
No testing/Student course evaluation  Graphics	<u> </u>	 A Naife		Part of Barbert All	in territoria en en en	<u> </u>		
2D graphics still	X		<b>.</b>			<del> </del>		
3D graphics still		<del> </del>	<b>!</b>	<u> </u>		ļ		
2D animation		1	ļ	ļ		<del> </del>		
3D animation  2D interactive animation		<del> </del>	1			<b></b>		
		ļ				ļ		
3D interactive animation	ļ	<u> </u>				<u> </u>		
Pre recorded video /films		1		23		<u> </u>		
Communications				430352 1				
Audio			<u></u>			<u> </u>		
Indirect discourse	<b></b>		1	ļ		ļ		
Assigned reading Open Discussion			<u> </u>		ļ	<b> </b>		
					ı	1		

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Course Name: Multidisciplinary Approach to Head and Neck Trauma	Course N	lumber: A	J156	
Asynchronous Course	V	VEB Base	ed Trainii	na
Interactivity Factors	Level 1		Level 3	Level 4
Administrative Requirements				
Self pacing		>>>>>>	>>>>>>	>>>>>
Group training				
On-demand availability		>>>>>>	>>>>>>	>>>>>
Open entry / open exit		>>>>>>	>>>>>>	>>>>>
Detailed student records		>>>>>>	>>>>>>	>>>>>
Test Security		>>>>>>	>>>>>>	>>>>>
Multiple test forms			>>>>>>	>>>>>
Training / Instruction Approach		(1) (E. 1)		
Lecture / Text	X	>>>>>	>>>>>>	>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>	>>>>>>	>>>>>
Demonstration			>>>>>>	>>>>>
Exhibit			>>>>>>	>>>>>
Guided Discussion			1	
Simulation - knowledge based			>>>>>>	>>>>>
Simulation - hardware				
Problem solving exercises			>>>>>>	>>>>>
Learning to Mastery		>>>>>>	>>>>>>	>>>>>
Practice / drill		>>>>>>	>>>>>	>>>>>
Structured Review		1		>>>>>
Feedback on performance			>>>>>>	>>>>>
Remediation			>>>>>>	>>>>>
Group activities/collaborative tasks	<del></del>		1	
Testing Types		ran establ	Marry L.	
Objective knowledge tests		>>>>>>	>>>>>>	>>>>>
Essay				
Performance test "paper" exercise			>>>>>>	>>>>>
Performance test - hardware simulation				
Performance test – hardware				
Oral testing	_			
No testing/Student course evaluation	X	>>>>>>	>>>>>>	>>>>>
Graphics				E against 1
2D graphics still	X	>>>>>>	>>>>>>	>>>>>
3D graphics still			>>>>>>	>>>>>
2D animation	1		>>>>>>	>>>>>
3D animation				>>>>>
2D interactive animation				>>>>>
3D interactive animation				
Pre recorded video /films	-		>>>>>>	>>>>>
Communications				
Audio		>>>>>	>>>>>	>>>>>
Indirect discourse		L		
Assigned reading		>>>>>>	>>>>>>	>>>>>
Open Discussion				1
Question and answer opportunities				

Shaded blocks indicate factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Course Name: Multidisciplinary Approach to Head and Neck Trauma	Course Number: A0156						
Asynchronous Course	Con	Computer Based Training					
Interactivity Factors	Level 1	Level 2	Level 3	Level 4			
Administrative Requirements							
Self pacing		>>>>>>	>>>>>>	>>>>>			
Group training			L				
On-demand availability		>>>>>>	>>>>>>	>>>>>>			
Open entry / open exit	<del> </del>	>>>>>>	>>>>>>	>>>>>			
Detailed student records							
Test Security							
Multiple test forms			>>>>>>	>>>>>			
Training / Instruction Approach							
Lecture / Text	Х	>>>>>>	>>>>>>	>>>>>			
Live Presenters (guest speakers)							
Self study		>>>>>>	>>>>>>	>>>>>			
Demonstration			>>>>>>	>>>>>			
Exhibit			>>>>>>	>>>>>>			
Guided Discussion							
Simulation - knowledge based			>>>>>>	>>>>>			
Simulation - hardware			l				
Problem solving exercises		>>>>>>	>>>>>>	>>>>>			
Learning to Mastery	<del>                                     </del>	>>>>>>	>>>>>>	>>>>>			
Practice / drill	<del>-  </del>	>>>>>>	>>>>>>	>>>>>			
Structured Review	-		>>>>>	>>>>>			
Feedback on performance		>>>>>>	>>>>>	>>>>>			
Remediation			>>>>>>	>>>>>			
Group activities/collaborative tasks							
Testing Types	yezem sarvy katybě	erionalista (d. 2	tooks on the second	an and a second			
Objective knowledge tests		>>>>>	>>>>>	>>>>>			
Essay							
Performance test – "paper" exercise			>>>>>>	>>>>>			
Performance test – hardware simulation				>>>>>			
Performance test – hardware							
Oral testing							
No testing/Student course evaluation	Х	>>>>>>	>>>>>	>>>>>>			
Graphics			L programation to the contract				
2D graphics still	X	>>>>>>	>>>>>	>>>>>			
3D graphics still			>>>>>>	>>>>>			
2D animation	_		>>>>>>	>>>>>			
3D animation				>>>>>			
2D interactive animation				>>>>>			
3D interactive animation	-						
Pre recorded video /films			>>>>>>	>>>>>			
Communications				L			
Audio		·*··	>>>>>	>>>>>			
Indirect discourse							
Assigned reading		>>>>>	>>>>>>	>>>>>			
Open Discussion							
Open Discussion							

Shaded blocks indicate factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

# **Short Worksheet: Development Time**

	ort Worksheet: Refined ourse Name: Multidiscip					
					ased Training Lev	el: 1
		Analysis	Design	Development	Implementation	Sums
1	Percentage of Time Spent by Task Type by Level	.40	.20	.25	.15	
2	Multiply line 1 by average * hours100					
3	Average hrs. per phase	40	20	25	15	Manager and American
4	Adjustments ** for hours per phase Use 1 for added time and for less time	.3	.5	.8	.3	
5	Adjusted hrs. Per phase. Multiply line 3 by line 4.	12	10	20	4.5	
	Total Labor Hours - sum across line 5					47

<sup>\*</sup> Average hours per hour of instruction
\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings

PPSCP courses based on assumptions given.

# **Short Worksheet: Development Time**

	ort Worksheet: Refined ourse Name: Multidiscip					- <del></del>			
			Media: Computer Based Training Level: 1						
		Analysis	Design	Development	Implementation	Sums			
1	Percentage of Time Spent by Task Type by Level	.40	.20	.25	.15				
2	Multiply line 1 by average * hours					H			
3	Average hrs. per phase	40	20	25	15	Andrew State of the State of th			
4	Adjustments ** for hours per phase Use 1 for added time and for less time	.3	.5	.8	.3	Manual Property of the Control of th			
5	Adjusted hrs. Per phase. Multiply line 3 by line 4.	12	10	20	4.5				
	Total Labor Hours - sum across line 5	-124	2.09			47			

<sup>\*</sup> Average hours per hour of instruction

\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings

PPSCP courses based on assumptions given.

# **Course Cost Estimation Worksheet**

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Course Cost Estimate Wo	rksheet: Web Base	d Training
	rse Name: Multidisciplinary	Course Number: A0156	
Appr	oach to Head and Neck Trauma		
1	Write the sum from Refined Estimated number of hrs. per hr. of	Hrs. 47	
2	Average hourly labor cost in dollars	S	\$ 50
3	Multiple line 1 by line 2 and put the	e results on line 3.	\$ 2350
4	Actual number of classroom equiva- converted or developed.		Hrs. 13
5	Compression: If conversions to asy delivery multiply line 4 by .7 (sever the results on line 5. If not a conversion asynchronous delivery skip line 5	n tenths) and put	Hrs. 9.1
6	Multiply line 3 by line 5 if a converse asynchronous delivery <b>OR</b> line 3 beconversion to asynchronous deliver on line 6.	\$ 21,385	
	<b>े विक्तृत</b> काङ्ग्रामाञ्च १७४० । १८४० । २०	y docto theil continue	in Sirvini
7			
,	Infrastructure Costs		\$
8	Infrastructure Costs Recurring Costs		\$
			,
8	Recurring Costs		\$
8	Recurring Costs  Delivery Labor Costs		\$
8 9 10	Recurring Costs  Delivery Labor Costs  Travel Costs		\$ \$ \$
8 9 10 11	Recurring Costs  Delivery Labor Costs  Travel Costs  Miscellaneous Costs		\$ \$ \$
8 9 10 11 12	Recurring Costs  Delivery Labor Costs  Travel Costs  Miscellaneous Costs  Add line 7 to 12		\$ \$ \$ \$
8 9 10 11 12 13	Recurring Costs  Delivery Labor Costs  Travel Costs  Miscellaneous Costs  Add line 7 to 12  Total Cost - Add lines 6 and 12.	line 13 by line 14	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ 21,385

Note: 125 total potential participants but less than half are military or government civilian. Web based training for military shown in the second number and cost figure in lines 14 and 15.

# **Course Cost Estimation Worksheet**

	Course Cost Estimate Worksh	eet: Computer Bas	sed Training
4	rse Name: Multidisciplinary	Course Number: A015	
Appr	oach to Head and Neck Trauma		
1	Write the sum from Refined Estima	•	1 to - 47
	estimated number of hrs. per hr. of	instruction.	Hrs. 47
2	Average hourly labor cost in dollars	<b>.</b>	\$ 50
3	Multiple line 1 by line 2 and put the	results on line 3.	\$ 2350
4	Actual number of classroom equiva converted or developed.	lent hours to be	Hrs. 13
5	Compression: If conversion to asymptotic line 4 by .7 (seven tenths) on line 5. If not a conversion to asymptotic line 5	Hrs. 9.1	
6	Multiply line 3 by line 5 if a convers asynchronous delivery <b>OR</b> line 3 by conversion to asynchronous deliver on line 6.	y line 4 if not a ry. Put the results	\$ 21,385
	ેDo not use lines 7 to 12 fo⊬an	y costs that are to	oeshared.
7	Infrastructure Costs		\$
8	Recurring Costs		\$
9	Delivery Labor Costs		\$
10	Travel Costs		\$
11	Miscellaneous Costs		\$
12	Add line 7 to 12		\$
13	Total Cost - Add lines 6 and 12.		\$ 21,385
14	Number of potential students		# 125 or 62
15	Average Cost Per Student Divide I	line 13 by line 14	\$ 171.08 / 344.91
1 2			

Cost Estimate for a Single Course Over a Five Year Period

Cost Estimate for a Single Co Course Name: Multidisciplinary					rerioa urse Numb	Ar: 40156	
and Neck Trauma			Ticud		aroc marris		
Tacharata au Calacta d	1						
Technology Selected	Leve	17	Level	2	Level 3	Level 4	Do Not Convert
WBT							X
CBT							
VTT	Low				High		
Other							711
Cost Estim	ate for	the	Use of	Web	Based Tra	aining, Lev	el 1
Cost Factors			Values			So	urce
Labor hours year 1		42	7.7				
2. Labor hours year 2		42	7.7		Course T	echnology M	Match Table
3. Labor hours year 3		42	7.7		Technolog	gy Interactiv	rity Factors Table
4. Labor hours year 4		42	7.7		1		
5. Labor hours year 5					7		
6. Subtotal		21	38.5				. 10
7. Average labor cost		\$ 5	50				
8. Total labor Cost over 5-yr.	period.	æ 1	06 025				
Multiply line 6 by line 7		\$ 106,925					
Additional Development/ Del	very C	ost	By Yea	ır			
9. Cost year 1		\$			Data to S	upport Cost	Analysis Worksheet
10. Cost year 2		\$					
11. Cost year 3		\$			1		44,000
12. Cost year 4		\$					
13. Cost year 5		\$					
14. Total Additional Costs.							
Sum lines 9 to 13 and enter	on	\$					
line 14							
15. Total Course Cost.							
Add lines 8 and 14 and ent	er on	\$ 1	106,925				
line 15							
16. Average cost over 5 years.							
Divide line 15 by 5 and ente	er on	\$ 2	21,385				
line 16.							
17. Potential students year 1		12	25 / 62		From Cou	ırse Informa	tion Summary Sheet
18. Total potential students year			<b>5 / 0 / 0</b>				
5 (multiply line 17 by 5. ar	a	62	5 / 310				
enter on line 18)	4 4-				<u>L.,</u>		
19. Average cost per student y		e 4	74 00 4	2440	,,		
5. (divide line 15 by line enter on line 19)	o and	(A)	71.08 /	3 <del>44</del> 8	"		
enter on me 19)		<u> </u>			l		

# ARMY FORCE HEALTH PROTECTION CONFERENCE Conversion Analysis

#### ARMY FORCE HEALTH PROTECTION CONFERENCE

#### Course Purpose:

No Government Furnished Information (GFI) was provided on this conference, so the actual purpose is unknown. Our observer noted that the course provided participants with current information affecting the practice and administration of preventive medicine programs in the

# Course Content Stability: High

No GFI was provided on this conference, so the assessment of high stability is based solely on our observer's assessment of the material.

# General Presentation Style:

#### Distributive

This course was delivered using primarily lecture (97%) with time for optional questions and answers and panel discussion (3%). The majority of the sessions, while falling within the definition of a lecture (one instructor to many learners), were structured to encourage and facilitate discussion and question and answer sessions

# INSTITUTIONE ATOS

A combination of overhead slides, computer-generated (Power Point) slides, 35 mm, and handouts supported presentation of the course materials.

#### Hands-on Activities:

None.

# Degree of Instructional Interaction

Because of the large number of participants, instructional interaction was limited to guestion and answer sessions during the lectures with only a small percentage of attendees being able to participate within the time constraints.

# Relevant Instructional Value: Unknown

Since the course theme and objectives were not provided, we are unable to assess the instructional value.

# Conditional Recommendations

# Convert to Web-Based Training.

Based on the observed content, this conference would be an excellent candidate for conversion to Web-Based Training. However, because we have no current cost or student throughput information, the recommendation is conditional. Our recommendation is based on the nature of the material, most of which is reasonably stable, and the predominance of the lecture method of delivery (97% of presentations), and the heavy use of computer-generated or overhead slides in support of the delivery. It would be important to select a format that would allow questions from participants, and would benefit from a discussion platform. Such a platform would permit interaction between speakers and participants in exploring issues more deeply and in problemsolving to address some of the concerns presented. Most Web-Based presentation platforms have a built-in email capability to ask questions of presenters. In addition, discussion or chat groups could be instituted on existing web sites.

# DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: Army Force Health Protection Conference			Course N	lumber: A 0137	7	
1. Instructional goals of the co	ourse: Unk	known.				
Frequency of course offering	per year	Unknown	1		Yes	No
3. Current length of course in ho		28	7. Conve	ert to DL?	X	
4. Number of hours to be conve	rted	28	8. Enhar	ice?		X
5. Number of registered students	S	150	This is ar	approximate nu	mber.	
Number of potential students benefit from the course	that could	Unknown				,
9. If item 8 = Yes, Specify						
Technology	Level 1	Level 2	Level 3	Level 4		******
WTB		Х				
CBT						
VTT	Low		High			
Other						
Labor Hours Estimation Metho	d: Short _	<u>X Long _</u>	Synchi	ronous		
		***				
Cost Data						
10. Total Cost Year One				\$130,200		70
11. Total Cost Year Two				\$65,100		
<ul><li>12. Total Cost Year Three</li><li>13. Total Cost Year Four</li></ul>				\$65,100		
14. Total Cost Year Five				\$65,100		
15. Total costs year 1 to 5 (Su	m of lines	10 through	4.4)	\$65,100		****
13. Total Costs year 1 to 5 (Su	in or lines	ro through	14)	\$390,600		
16. Average cost, years 1 to 5 (I	Divide value	in line 15 h	(5)	\$78,120		
17. Total potential students over				Unknown		
number of potential students [iter			imply the	Olikilowii		
<b>18.</b> Average cost per potential (divide the value in line 15 by the			eriod.	Unknown		
Additional Hardware/Software	e Required				Page 1	
Item:	17.00			Cost per unit	Tota Cos	
Proposed Enhancements		Cost				
	77784					
114.0						
Total Enhancement Costs						

**Instructional Formats and Physical Training Requirements** 

Course Name:
Army Force Health Protection Conference

Course Number:
A 0137

of Course ing this structional rmat	Format	<u>Description</u>	Physical Presence Required?		
97%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No		
3%	A selected group (often selected for their expertise or experience in a given				
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No		
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?		
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?		
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?		
	Student Verbal Presentations	Students present verbal information to the larger group.	?		
	Student Procedural Presentations	Students present procedural information to the larger group.	?		
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?		
	Shop Activity	Hands-on technical tasks/procedures.	?		
	Lab Activity	Hands-on laboratory tasks/procedures.	?		

# **Course Information Summary Sheet**

Course Name: Army Force Health Pro	otection Con	ference				
Course Number: A 0137						
Length of course - number of hours	s of instruct	ion: 28				
Number of Registered Students: ap						
Number of potential students that c	ould benefi	t from this course: Unknown				
Instructional goals of the course: U	nknown					
Frequency of Course Offering: Unkr	nown					
Continuing Education Credit Offered	<b>d?</b> Unknown	Number: Unknown				
		, station of the control of the cont				
For each item listed, check ✓ ro	w marked	"Check" if observed or documen	ited.			
Administrative Requirements	Check		Check			
Self pacing		Detailed student records				
Group training		Test Security				
On-demand availability		Multiple test forms				
Open entry / open exit						
Training / Instruction Approach						
Lecture / Text	<b>1</b>	Learning to Mastery				
Live Presenters (guest speakers)		Practice / drill				
Self study		Structured Review				
Demonstration		Feedback on performance				
Exhibit		Remediation				
Guided Discussion		Group activities/collaborative tasks				
Simulation (roll play, in-basket)						
Problem solving exercises						
Testing Types						
Objective knowledge tests		Performance test hardware				
Essay		Oral testing				
Performance test –"paper"		No testing/Student course eval	1			
Performance test – hardware						
Graphics						
Graphics 2D graphics still	1	3D animation				
3D graphics still	7	3D animation				
2D animation		2D interactive animation				
2D animation		3D interactive animation Pre recorded video /films				
Communications		File recorded video /ilims	✓			
Audio		Open Discussion				
Indirect discourse		Open Discussion  Question and answer				
Assigned reading		Question and answer	-			
7.05igiled readility						

**Course Technology Match Table** 

Course: Army Force Health Protection Con	ference					
Administrative Requirements	Check	CBT	WBT	VTT		
Self pacing						
Group training						
On-demand availability						
Open entry / open exit						
Detailed student records		1.		-	<del></del>	
Test Security						
Multiple test forms						
Training / Instruction Approach				1		
Lecture / Text	1					-
Live Presenters (guest speakers)						
Self study					<u> </u>	
Demonstration						
Exhibit						-
Guided Discussion						+
Simulation – knowledge based						+
Simulation - hardware						+
Problem solving exercises	<del> </del>					-
Learning to Mastery						1
Practice / drill	-					1
Structured Review						<b>†</b>
Feedback on performance						_
Remediation						+
Group activities/collaborative tasks						_
Testing Types	1					
Objective knowledge tests			T	1	<u> </u>	T
Essay						
Performance test - "paper" exercise		-				+
Performance test – hardware simulation						<u> </u>
Performance test – hardware						<del>                                     </del>
Oral testing		-				<del>                                     </del>
No testing/Student course evaluation	1					
Graphics						
2D graphics still	1					
3D graphics still				-		+
2D animation						-
3D animation	-					-
2D interactive animation	+		+			+
3D interactive animation	1					-
Pre recorded video /films	1			_		+
Communications		I			1	
Audio						T
Indirect discourse					1	+
Assigned reading						+
Open Discussion					+	+
Question and answer opportunities					-	+

If the course requires any of the factors indicated by a black box on the technology side, then this technology should not be used for the course.

Course Name: Army Force Health Protection Conference	Course N	umber: A	0137	
Asynchronous Course	WEB Based Training			ng
Interactivity Factors	Level 1	Level 2	Level 3	Level 4
Administrative Requirements				
Self pacing		>>>>>	>>>>>>	>>>>>
Group training		A Charles		
On-demand availability		>>>>>	>>>>>>	>>>>>
Open entry / open exit		>>>>>	>>>>>>	>>>>>
Detailed student records		>>>>>>	>>>>>>	>>>>>
Test Security		>>>>>>	>>>>>>	>>>>>
Multiple test forms			>>>>>>	>>>>>
Training / Instruction Approach	·			
Lecture / Text		>>>>>>	>>>>>	>>>>>
Live Presenters (guest speakers)	•			
Self study		>>>>>>	>>>>>	>>>>>
Demonstration			>>>>>	>>>>>
Exhibit			>>>>>>	>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>	>>>>>
Simulation - knowledge based Simulation - hardware			7777777	,,,,,,,
Problem solving exercises			>>>>>	*****
Learning to Mastery		>>>>>>	>>>>>>	>>>>>
Practice / drill		>>>>>>	>>>>>>	>>>>>
Structured Review				>>>>>
			>>>>>	>>>>>
Feedback on performance  Remediation			>>>>>>	>>>>>
Group activities/collaborative tasks			,	>>>>>
Testing Types			T 2222222	T
Objective knowledge tests		>>>>>>	>>>>>	>>>>>
Essay				
Performance test – "paper" exercise  Performance test – hardware simulation			>>>>>	>>>>>
Performance test – hardware simulation				
Oral testing				
No testing/Student course evaluation	<b>√</b>	>>>>>	>>>>>	>>>>>
Graphics			T	
2D graphics still	<b>J</b>	>>>>>	>>>>>>	>>>>>
3D graphics still			>>>>>>	>>>>>
2D animation			>>>>>	>>>>>
3D animation				>>>>>
2D interactive animation			L	>>>>>
3D interactive animation				
Pre recorded video /films		<b>√</b>	>>>>>	>>>>>
Communications	1	T*		T
Audio		>>>>>	>>>>>	>>>>>
Indirect discourse				
Assigned reading		>>>>>>	>>>>>>	>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicate factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Technology Interactivity Factors

Asynchronous Course	Computer Based Training			
Interactivity Factors	Level 1	Level 2	Level 3	Level 4
	2010.1	2010.2	Lovero	Levers
Administrative Requirements				
Self pacing		>>>>>	>>>>>>	>>>>>
Group training				
On-demand availability		>>>>>>	>>>>>>	>>>>>
Open entry / open exit		>>>>>>	>>>>>>	>>>>>
Detailed student records				
Test Security				
Multiple test forms	• •		>>>>>	>>>>>
raining / Instruction Approach				
Lecture / Text	<b>√</b>	>>>>>	>>>>>	>>>>>
Live Presenters (guest speakers)				,
Self study		>>>>>	>>>>>>	>>>>>
Demonstration			>>>>>>	>>>>>
Exhibit	- 4		>>>>>>	>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>	>>>>>
Simulation - hardware			,	
Problem solving exercises		>>>>>>	>>>>>>	>>>>>
Learning to Mastery		>>>>>	>>>>>	>>>>>
Practice / drill		>>>>>	>>>>>	>>>>>
Structured Review			>>>>>	>>>>>
Feedback on performance		>>>>>	>>>>>	>>>>>
Remediation			>>>>>	>>>>>
Group activities/collaborative tasks				
esting Types	<del></del>			
Objective knowledge tests		>>>>>>	>>>>>	>>>>>
Essay				
Performance test – "paper" exercise			>>>>>>	>>>>>
Performance test – hardware simulation				>>>>>
Performance test hardware				
Oral testing				
No testing/Student course evaluation	<b>/</b>	>>>>>	>>>>>>	>>>>>
Graphics	, <u> </u>			
2D graphics still	✓	>>>>>	>>>>>	>>>>>
3D graphics still			>>>>>	>>>>>
2D animation			>>>>>	>>>>>
3D animation				>>>>>
2D interactive animation				>>>>>
3D interactive animation				
Pre recorded video /films		✓	>>>>>	>>>>>
Communications	<u></u>			
Audio		>>>>>	>>>>>	>>>>>
Indirect discourse				
Assigned reading		>>>>>>	>>>>>	>>>>>
Open Discussion				

Shaded blocks indicate factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

# **Course Cost Estimation Worksheet**

	Course Cost Estimation Worksheet: Web Based Training		
	se Name: Army Force Health Protection Course Number: A 0137	***************************************	
Cont	erence		
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of	Hrs.	93
	instruction.		
2	Average hourly labor cost in dollars	\$	\$50.00
3	Multiple line 1 by line 2 and put the results on line 3.	\$	\$4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	28
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	20
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	\$	\$91,140.00
	Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	\$	
8	Recurring Costs	\$	
9	Delivery Labor Costs	\$	
10	Travel Costs	\$	
11	Miscellaneous Costs	\$	
12	Add line 7 to 12	\$	\$0.00
13	Total Cost - Add lines 6 and 12.	\$	\$91,140.00
14	Number of potential students.	\$	Unknown
15	Average Cost Per Student Divide line 13 by line 14	\$	Unknown

# **Course Cost Estimation Worksheet**

	Course Cost Estimation Worksheet: CBT Multimedia		* .
	urse Name: Army Force Health Protection nference  Course Number: A 0137		
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	\$	\$50.00
3	Multiple line 1 by line 2 and put the results on line 3.	\$	\$4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	28
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	20
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	\$	\$91,140.00
A.	Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	\$	
8	Recurring Costs	\$	
9	Delivery Labor Costs	\$	
10	Travel Costs	\$	
11	Miscellaneous Costs	\$	
12	Add line 7 to 12	\$	\$0.00
13	Total Cost - Add lines 6 and 12.	\$	\$91,140.00
14	Number of potential students.	\$	Unknown
15	Average Cost Per Student Divide line 13 by line 14	\$	Unknown
		<u> </u>	· .

<b>Course Name:</b> Army Medical Speci Executive Management Course	S	Course Number: A 0624				
Technology Selected	Level 1	Level 2	Level 3	Level 4		
WBT		X				
CBT						
VTT L	OW WC		High			
Other						
Cost Factors		Values		Course		
Labor Hours Year 1		2604		Source	along to see Martala Talala	
1. Labor Hours Year 1		12004			chnology Match Table, y Interactivity Factors Table	
2. Labor Hours Year 2		1302		- Commonog	y moradivity radioid rabio	
3. Labor Hours Year 3		1302		-		
4. Labor Hours Year 4		1302				
5. Labor Hours Year 5		1302		1		
6. Subtotal		7812		For the pu	rposes of this analysis, we will	
				assume that there is only a 50% turnover course materials in years two through five		
7. Average Labor Cost per hour		\$50				
8. Total labor cost over a 5 year per Multiply line 7 by line 6.	riod.	\$390,600				
Additional Development Costs E	By Year	-Long-to-				
9. Cost year 1				Data to Su	pport Cost Analysis Worksheet	
10. Cost year 2						
11. Cost year 3	***************************************					
12. Cost year 4						
13. Cost year 5	111111111111111111111111111111111111111					
<ol> <li>Total additional costs. Sum line and enter on line 14</li> </ol>	s 9 to 13	\$0				
<ol> <li>Total Course Cost. Add lines 8 and enter on line 15.</li> </ol>	and 14	\$390,600	***************************************			
<ul><li>16. Average cost over 5 years. Div</li><li>15 by 5 and enter on line 16.</li></ul>	ide line	\$78,120				
17. Potential students year 1.		Unknown		From Cour	rse Information Summary Sheet	
18. Total potential students year 1 t (multiply line 17 by 5 and enter on lin		Unknown		***************************************		
19. Average cost per student year 1 (Divide line 15 by line 18 and enter of 18)		Unknown		Round up	to the nearest whole dollar.	

# **Endodontics for the General Dentist Conversion Analysis**

### ENDODONTICS FOR THE GENERAL DENTIST

#### Course Purpose:

The course is designed to increase the endodontic knowledge and clinical expertise of Army general dentists so that the dentist can provide a higher quality of endodontic dental care for patients. Emphasis is placed upon practicing within the military environment.

#### Course Content Stability: Moderate

The majority of the course focuses on advances in the field and research findings. Other presentations (about 1/3) focused on areas that may not be 'new" but are rarely dealt with or seen, to reinforce good clinical practice.

#### General Presentation Style: Distributive

The standard method of presentation was lecture. Though the students asked few questions, all instructors were willing to accept questions during and immediately their presentations.

### Instructional Aids:

Two 35mm slide projectors and wireless microphones and speakers supported all presentations.

#### Hands-on Activities:

One demonstration session was given. This was supported partly by manufacturers of equipment. Some students were able of operate the equipment, most observed.

# Degree of Instructional Interaction

While opportunity did exist to ask questions and exchange views with the presenters most students seemed to prefer to talk to the presenter after the course or during the breaks. Generally the students observed and some took notes. Yet the level of retention was probably high since the work involved was directly related to what the students do.

#### Relevant Instructional Value:

#### Market Charles

The content was clearly focused and within the criteria for a PPSCP course. Students were exposed to new concepts/approaches. This course did not wander off topic - probably due to the fact that the Endodontics Residency Program conducted it. The course directors simply followed the same good practices followed at the school.

#### Recommendation

Primary Recommendation: Convert to VTT.

Secondary Recommendation: Convert to WBT.

This course is ideal for Web based training (WBT) as well as VTT. It is coherent and it is not dependent on hands-on activities. On the Web, the course could easily be made highly interactive, while as a VTT course, the actual level of student /instructor interactivity would not be reduced. The major difference is the overall cost. As a Web based training course, the course would cost \$325,500 over five years to provide yearly training for every dentist in the Army at a cost of \$70 a year. VTT could provide the same training at a cost of \$14 per student. Other than cost, the most significant difference between the two approaches is a loss of flexibility if VTT is used. As a Web based training course, the course would be available on demand, at any time, simply by logging on and registering on-line. As a VTT based course, the course would be available once live. For those who were unable to view the course through VTT, it could be provided with a set of VCR tapes. The advantage of VTT is cost and the advantage of WBT is flexibility. Our first choice of VTT is based on lower cost to the Army.

# DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: Endodontics for the General Dentist			Cours A0202		Num	ber:				
Instructional goals of the cou art and science of Endodontics. Provi practice.	<b>Irse :</b> Prov de practica	/ide th	ne gene wledge	era ar	al den nd ski	tist wit	th increased t can be ap	d knowle plied in t	dge of t	he ical
2. Frequency of course offering p	er vear	# 1							Yes	No
3. Current length of course in hou		# 19		7	Cor	wort f	to DL?		X	140
Number of hours to be converted.		# 19		· 3.		ance				X
5. Number of registered students		# 7C		·	L111	ance	!			^
6. Number of potential students th		<del>π</del> / C	<del>,  </del>							
could benefit from the course		# 93	22							
codid benefit from the codise		# 93	02	_					<u> </u>	
9. If item 8 = Yes. Specify										
	1114	<del> </del>		_						
Technology	Level 1	Le	vel 2	1	Leve	1 3	Level 4			
WBT				_						
CBT										
VTT	Low	X		1	High					
Other									_	
Labor Hours Estimation Method	: Short	_ Lo	ng	Sy	ynch	rono	us _X			
	C	cost I	Data							
<ol><li>Total Cost Year One</li></ol>						\$ 19	,150			
<ol><li>Total Cost Year Two</li></ol>						\$ 11	,150			
12. Total Cost Year Three		***				\$ 11	,150			
13. Total Cost Year Four						\$ 11	,		****	
!4. Total Cost Year Five						\$ 11				
15. Total costs year 1 to 5 (Sun	of lines	10 th	roual	1 1	14)	\$ 63				
							,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
16. Average cost, years 1 to 5 (div	ide value	in lin	e 15 h	N/	5)	\$ 12	750			
17. Total potential students over a				,	-	Ψ · -	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	<del> </del>		****
(multiply the number of potent				hc	ove)					
by 5.)		(,,,	J 0 u	~ .	,	# 46	60			
18. Average cost per potential s	tudent ov	ver 5	vear			,, 10				
period.		. 0. 0	your							
(divide the value in line 15 by	the value	in line	e 17)			\$ 14				
(and the transfer in the state)	THE VALUE		0 11)			ΨΙΤ				
Additio	nal Hard	Mare	/Softw	/21	re Re	auir				
Item:	mai mara	wa, c,		, aı	10 110		t per unit	Total	Coot	
	· · · · · · · · · · · · · · · · · · ·					003	t per unit	TOtal	CUST	
Drawaged Enhancement(s)	04									
Proposed Enhancement(s)	Cost									
	\$									****
	\$									
	\$									
Total Enhancement Costs	\$									******
							,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Control of the Contro										

Instructional Formats and Physical Training Requirements

**Shop Activity** 

Lab Activity

Course Nar Endodontics	<b>ne:</b> s for the General D	entist Course Number: A0202	
% of Course Using this Instructional Format	Format	Description	Physical Presence Required?
76%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
N COMMINSTER	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
11%	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
13%	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?

Hands-on technical tasks/procedures.

Hands-on laboratory tasks/procedures.

?

?

# **Course Information Summary Sheet**

Course Name: Endodontics for the General Dentist Course Number: A0202

Length of course - number of hours of instruction: 19

Number of Registered Students: 70

Number of potential students that could benefit from this course: (all dentists)

**Instructional goals of the course:** Provide the general dentist with increased knowledge of the art and science of Endodontics. Provide practical knowledge and skills that can be applied in their clinical practice.

Frequency of Course Offering: Once a year

For each item listed, check ✓ row		"Check" it observed or documen	
Administrative Requirements	Check		Check
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	Х	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration	Х	Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	
Simulation (roll play, in-basket)		•	
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	T
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval	
Performance test – hardware			
Graphics		I.	
2D graphics still	X	3D animation	1
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	
Communications			•
Audio		Open Discussion	
Indirect discourse		Question and answer	
Assigned reading			1

**Course Technology Match Table** 

Course (Name) Endodontics for the General Dentist			Technologies					
Administrative Requirements	Check	СВТ	WBT	VTT	T	T		
Self pacing								
Group training						-		
On-demand availability								
Open entry / open exit								
Detailed student records								
Test Security								
Multiple test forms				<b>-</b>		-		
Training / Instruction Approach								
Lecture / Text	Х			-				
Live Presenters (guest speakers)					-			
Self study								
Demonstration	Х			-		-		
Exhibit					_	-		
Guided Discussion					·	-		
Simulation – knowledge based			·	-	<u> </u>			
Simulation - hardware								
Problem solving exercises			1					
Learning to Mastery								
Practice / drill			-	-				
Structured Review				_				
Feedback on performance				"		-		
Remediation				-				
Group activities/collaborative tasks								
Testing Types				<u> </u>				
Objective knowledge tests		1	T		1			
Essay								
Performance test"paper" exercise								
Performance test – hardware simulation			-			_		
Performance test – hardware								
Oral testing						-		
No testing/Student course evaluation						-		
Graphics								
2D graphics still	Х	_	T	Т.	7	7		
3D graphics still			+					
2D animation				+	+	-		
3D animation					-	<del>  -</del>		
2D interactive animation					_	-		
3D interactive animation			-					
Pre recorded video /films					-	-		
Communications		L	1	1	1	<u> </u>		
Audio			1	T	T			
Indirect discourse		·						
Assigned reading								
Open Discussion			<u> </u>		<del> </del>			
Question and answer opportunities								

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Course Name: Endodontics for the General Dentist	Course Number: A0202						
Asynchronous Course	WEB Based Training						
Interactivity Factors	Level 1	Level 2	Level 3	Level			
Administrative Requirements							
Self pacing		>>>>>>	>>>>>>	>>>>>			
Group training							
On-demand availability		>>>>>>	>>>>>>	>>>>>			
Open entry / open exit		>>>>>>	>>>>>>	>>>>>			
Detailed student records		>>>>>>	>>>>>>	>>>>>			
Test Security		>>>>>>	>>>>>>	>>>>>			
Multiple test forms			>>>>>>	>>>>>			
Training / Instruction Approach							
Lecture / Text	Х	>>>>>	>>>>>	>>>>>			
Live Presenters (guest speakers)							
Self study		>>>>>	>>>>>>	>>>>>			
Demonstration		Х	>>>>>>	>>>>>			
Exhibit			>>>>>>	>>>>>			
Guided Discussion							
Simulation – knowledge based			>>>>>	>>>>>			
Simulation - hardware	- 1			******			
Problem solving exercises			>>>>>	>>>>>			
Learning to Mastery		>>>>>	>>>>>	>>>>>			
Practice / drill		>>>>>>	>>>>>	>>>>>			
Structured Review				>>>>>			
Feedback on performance	-		>>>>>	>>>>>			
Remediation			>>>>>>	>>>>>			
Group activities/collaborative tasks				******			
Testing Types							
Objective knowledge tests	T	>>>>>	>>>>>	>>>>>			
Essay							
Performance test –"paper" exercise			>>>>>>	>>>>>			
Performance test – hardware simulation			*********				
Performance test – hardware	-						
Oral testing							
No testing/Student course evaluation		>>>>>	>>>>>>	>>>>>			
Graphics							
2D graphics still		>>>>>	>>>>>	>>>>>			
3D graphics still	Х		>>>>>>				
2D animation	_		>>>>>>	>>>>>			
3D animation			///////	>>>>>			
2D interactive animation				>>>>>			
3D interactive animation				>>>>>			
Pre recorded video /films							
Communications			>>>>>	>>>>>			
	T	~~~~~					
Audio		>>>>>	>>>>>	>>>>>			
Indirect discourse							
Assigned reading		>>>>>>	>>>>>	>>>>>			
Open Discussion							
Question and answer opportunities							

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Course Name: Endodontics for the General Dentist	Course Number: A0202						
Asynchronous Course	Computer Based Training						
Interactivity Factors	Level 1	Level 2	Level 3	Level 4			
Administrative Requirements							
Self pacing		>>>>>	>>>>>>	>>>>>			
Group training	Jan Barrier						
On-demand availability		>>>>>>	>>>>>>	>>>>>			
Open entry / open exit		>>>>>>	>>>>>>	>>>>>			
Detailed student records				1			
Test Security							
Multiple test forms			>>>>>	>>>>>			
Training / Instruction Approach							
Lecture / Text	Х	>>>>>	>>>>>>	>>>>>			
Live Presenters (guest speakers)							
Self study		>>>>>>	>>>>>>	>>>>>			
Demonstration	. •	Х	>>>>>>	>>>>>			
Exhibit			>>>>>>	>>>>>			
Guided Discussion							
Simulation – knowledge based			>>>>>>	>>>>>			
Simulation - hardware							
Problem solving exercises		>>>>>>	>>>>>>	>>>>>			
Learning to Mastery		>>>>>	>>>>>>	>>>>>			
Practice / drill		>>>>>	>>>>>>	>>>>>			
Structured Review			>>>>>>	>>>>>			
Feedback on performance		>>>>>	>>>>>>	>>>>>			
Remediation			>>>>>>	>>>>>			
Group activities/collaborative tasks							
Testing Types							
Objective knowledge tests		>>>>>	>>>>>	>>>>>			
Essay							
Performance test –"paper" exercise			>>>>>>	>>>>>			
Performance test – hardware simulation				>>>>>			
Performance test – hardware							
Oral testing							
No testing/Student course evaluation		>>>>>>	>>>>>	>>>>>			
Graphics							
2D graphics still	X	>>>>>	>>>>>	>>>>>			
3D graphics still			>>>>>	>>>>>			
2D animation			>>>>>	>>>>>			
3D animation				>>>>>			
2D interactive animation				>>>>>			
3D interactive animation							
Pre recorded video /films			>>>>>>	>>>>>			
Communications							
Audio		>>>>>>	>>>>>>	>>>>>			
Indirect discourse							
Assigned reading		>>>>>>	>>>>>>	>>>>>			
Open Discussion							
Question and answer opportunities							

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Course Name: Endodontics for the General Dentist	Course Number: A0202				
Synchronous Course	Video To	eletraining			
Interactivity Factors	Level 1 Low				
Administrative Requirements					
Self pacing					
Group training		>>>>>			
On-demand availability					
Open entry / open exit					
Detailed student records					
Test Security		>>>>>>			
Multiple test forms		>>>>>			
Training / Instruction Approach					
Lecture / Text	X	>>>>>			
Live Presenters (guest speakers)		>>>>>>			
Self study					
Demonstration	X	>>>>>			
Exhibit		>>>>>>			
Guided Discussion					
Simulation – knowledge based		>>>>>			
Simulation - hardware					
Problem solving exercises					
Learning to Mastery					
Practice / drill					
Structured Review					
Feedback on performance					
Remediation					
Group activities/collaborative tasks					
Testing Types					
Objective knowledge tests					
Essay					
Performance test - "paper" exercise					
Performance test – hardware simulation					
Performance test – hardware					
Oral testing					
No testing/Student course evaluation		>>>>>			
Graphics					
2D graphics still	X	>>>>>>			
3D graphics still		>>>>>>			
2D animation		>>>>>>			
3D animation		>>>>>>			
2D interactive animation					
3D interactive animation					
Pre recorded video /films		>>>>>			
Communications	<u> </u>				
Audio		>>>>>			
Indirect discourse					
Assigned reading		>>>>>			
Open Discussion					
P		L			

Shaded blocks indicates factors NOT supported by that level of technology Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

**Short Worksheet: Development Time** 

Sh	Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction							
Co	Course Name: Endodontics for the General Dentist Media: Web Based Training Level: 2							
		Analysis	Design	Development	Implementation	Sums		
	Percentage of Time							
1	Spent by Task Type	.40	.20	.25	.15			
	by Level					japanesis (**)		
	Multiply line 1 by	i jestini.		The state of the s	1002á	ay alta i		
2	average *	The section of the se	, a+1	A the second of	1 225 MP 1 . T. 1 660 ME 1 . 1 . 1 . 1 . 1 . 1 . 1 . 1 . 1 . 1	aveneraries et al.		
	hours200		The second section			a at the state of		
3	Average hrs. per	80	40	<b>5</b> 0	20			
٦	phase	80	40	50	30			
	Adjustments **					ery, all		
	for hours per phase					1994 1994		
4	Use 1 for added	.3	.5	.8	.3	San San Pari		
	time and for less							
	time					Arran Contract		
	Adjusted hrs. per	-				- :		
5	phase. Multiply line 3	24	20	40	9			
	by line 4							
	Total Labor Hours -	14	: 1			0.2		
	sum across line 5		· '=	,		93		

<sup>\*</sup> Average hours per hour of instruction

\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

**Short Worksheet: Development Time** 

Sh	Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction								
Co	Course Name: Endodontics for the General Dentist Media: Computer Based Training Level: 2								
		Analysis	Design	Development		Sums			
1	Percentage of Time Spent by Task Type by Level	.40	.20	.25	.15				
2	Multiply line 1 by average * hours200								
3	Average hrs. per phase	80	40	50	30	egunin Az és a salak.			
4	Adjustments ** for hours per phase Use 1 for added time and for less time	.3	.5	.8	.3				
5	Adjusted hrs. per phase. Multiply line 3 by line 4	24	20	40	9				
	Total Labor Hours - sum across line 5					93			

<sup>\*</sup> Average hours per hour of instruction

\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

# **Course Cost Estimation Worksheet**

	Course Cost Estimate Worksheet: Web Based Training							
1	rse Name: Endodontics for the eral Dentist	Course Number: A						
1	Write the sum from Refined Estimated number of hrs. per hr. o	Hrs. 93						
2	Average hourly labor cost in dollar	S	\$ 50					
3	Multiple line 1 by line 2 and put the	e results on line 3.	\$ 4650					
4	Actual number of classroom equiva- converted or developed.	alent hours to be	Hrs. 19					
5	Compression: If conversion to asymptotic street asymptotic street asymptotic conversion to asymptotic street asymptotic	Hrs. 14						
6	Multiply line 3 by line 5 if a conver asynchronous delivery <b>OR</b> line 3 b conversion to asynchronous deliver on line 6.	\$ 65,100						
	Do not use lines 7 to 12 for any costs that are to be shared.							
7	Infrastructure Costs	The second secon	\$					
8	Recurring Costs		\$					
9	Delivery Labor Costs		\$					
10	Travel Costs		\$					
11	Miscellaneous Costs		\$					
12	Add line 7 to 12		\$					
13	Total Cost - Add lines 6 and 12.		\$					
14	Number of potential students		# 932 <sup>1</sup>					
15	Average Cost Per Student Divide	line 13 by line 14	\$ 70					
& *								

<sup>&</sup>lt;sup>1</sup> The course is considered appropriate for all dentists. The estimated number of dentists in the Army in 1999 will be 932.

# **Course Cost Estimation Worksheet**

	Course Cost Estimate Worksh	neet: Computer Bas	sed Training				
	Irse Name: Endodontics for the eral Dentist	Course Number: /	<del>\</del> 0202				
1	Write the sum from Refined Estima estimated number of hrs. per hr. of		Hrs. 93				
2	Average hourly labor cost in dollars	3	\$ 50				
3	Multiple line 1 by line 2 and put the	results on line 3.	\$ 4650				
4	Actual number of classroom equiva converted or developed.		Hrs. 19				
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5						
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery <b>OR</b> line 3 by conversion to asynchronous deliver on line 6.	y line 4 if not a	\$ 65,100				
'	Do not use lines 7 to 12 for an	y costs that are to	be shared.				
7	Infrastructure Costs	32 (000)	\$				
8	Recurring Costs		\$				
9	Delivery Labor Costs		\$				
10	Travel Costs		\$				
11	Miscellaneous Costs		\$				
12	Add line 7 to 12		\$				
13	Total Cost - Add lines 6 and 12.		\$				
14	Number of potential students		# 932				
15	Average Cost Per Student: Divide	line 13 by line 14	\$ 70				

**Calculation of Synchronous Training Costs** 

Course Name: Endodontics for the General Dentist	Course Number: A0202
Demisi	
Labor	Costs:
Development Cost = (320 hrs.) x average hourly	
rate (\$50)	\$ 16,000
Course Managers Studio Cost = (Total studio time	<b>+</b> 10,000
+ 1 hour for each day the course is offered) x	
number of times course is presented x average	
hourly rate (\$50)	\$ 1150
Non-local Labor Cost = Number of non-local	
presenters ) x (length of the course in days +1) x	
number of times offered x average daily rate (\$400	\$ 400
Local Labor Cost + Number of local presenters x	T
average hourly rate (\$50) X 2 X number of times	
course is offered.	\$ 1,100
Total Labor Costs	\$ 18,650
	¥ 10,000
Additional Cost (any c	osts not captured above)
Total Per Diem =	
(length of course in days plus one	
travel day x number of non-local presenters) x	
(local daily per diem rate) x number of time the	
course will be presented.	\$ 500
Total Air Fair = (Average Round Trip Air Fair x	
number of non-local presenters) x number of times	
the course will be presented.	\$ -0-
Total dollar amount paid as honorariums	\$ -0-
(Other)	
Total Estimated Cost: Add Total Por Diam	Airfare, Labor Costs, and Additional Costs.
Total Labor Costs	\$ 18,650
Total Per Diem	\$ 500
Total Airfare	\$ -0-
Total paid as honorariums	\$ -0-
(other)	\$ -0-
TOTAL COURSE COST Year 1	\$ 19,150
Cost Per Student = Total course costs divided by	Ψ 10,100
potential number of students	\$ 21
opiennal number of subbenis	Ψ

Cost Estimate for a Single Cou										
Course Name: Endodontics for the	Course Name: Endodontics for the General Dentist									
				,						
Technology Selected	Level	1	Level 2	L	evel 3	Level 4				
WBT										
CBT	-									
VTT	Low	<b>)</b>	<b>(</b>	Hig	ah					
Other					<u> </u>					
			L	l						
Cost Factors			Values		-	So	urce			
1. Labor hours year 1		32	0							
2. Labor hours year 2		16	0	<sup>_</sup> c	ourse T	echnology N	Match Table			
3. Labor hours year 3		16	0		Technology Interactivity Factors T					
4. Labor hours year 4		16	0				•			
5. Labor hours year 5		16	0							
6. Subtotal		96	0							
7. Average labor cost		\$5	0							
8. Total labor Cost over 5 yr. pe	eriod.	Φ.	10.000							
Multiply line 6 by line 7		\$ 48,000								
Additional Development/ Deliv	ery Co	ost	By Year							
9. Cost year 1		\$ 3,150		D	ata to S	Support Cost	Analysis Worksheet			
10. Cost year 2		\$ 3	3,150							
11. Cost year 3			3,150							
12. Cost year 4			3,150							
13. Cost year 5		\$ 3	3,150							
14. Total Additional Costs .			· · · · · · · · · · · · · · · · · · ·							
Sum lines 9 to 13 and enter	on	\$ 1	15,750							
line 14										
15. Total Course Cost.							78.			
Add lines 8 and 14 and enter	on	\$ 6	33,750							
line 15										
16. Average cost over 5 years.		_								
Divide line 15 by 5 and enter	on	\$ 1	12.750							
line 16.										
17. Potential students year 1		93	32	F	rom Coi	ırse Informa	ation Summary Sheet			
18. Total potential students year		, -								
5 (multiply line 17 by 5. and		46	60							
enter on line 18)										
19. Average cost per student yr		•	4.4	_						
5. (divide line 15 by line 18	and	\$ 1	14	R	ound up	to the near	est whole dollar			
enter on line 19)										

# Restorative Dentistry and Dental Materials Conversion Analysis

#### RESTORATIVE DENTISTRY AND DENTAL MATERIALS

#### Course Purpose:

To provide a review of current techniques, and recent advances, trends, and developments in restorative dentistry and dental materials.

#### Course Content Stability: Low

Due to time limitations, all topics cannot be presented on a yearly basis. Therefore, not only will content change depending on current research and developments, but topics will change as well.

#### General Presentation Style:

M(=0)(1)7e

The entire course is delivered as lectures augmented by slides or overheads. That is, the information was delivered using a lecture format as the primary vehicle in which one (1) instructor presented information to many learners. All students attend all lectures. Their are no breakout sessions

#### Instructional Aids:

There was extensive use of 35 mm slides providing images of teeth, dental casts, tools, and treatment materials. In addition, each of the instructors provided handouts with supplemental information relevant to the topic they were addressing

#### Hands-on Addivides

None

#### Degree of Instructional Interaction:

There were opportunities for the students to ask questions, and the degree to which this interaction was engaged in varied from instructor to instructor. In general, these questions concerned points of clarification. The question/answer periods were generally limited to an exchange between an individual student and the instructor, such that the interaction did not expand into a general discussion period involving several students.

#### Relevant Instructional Value: High

This course provides a significant amount of information that is relevant to the professional performance of the attendees.

#### Recommendation

#### Convert to Video Teletraining

This course could be converted to almost any distance learning format. However, given that the level of interactivity is low, it is ideal for conversion to Video Teletraining (VTT). As is currently done, the course can be presented once to all participants through VTT. While approximately 120 individuals currently take part, the course is appropriate to some 450 individuals. This approach will provide an extremely low per student cost while expanding the number of students able to access this information. Only one hour of the current instruction is not recommended for conversion to VTT. This hour focuses on administrative and career issues. Recommend that this topic be added to a Web page that could be updated as often as necessary.

# **DISTANCE LEARNING CONVERSION REPORT FORM**

Course Name: Restorative Dentistry and Dental Mater	rials	Co	urs	e Nun	ber:	A0208			
resterance Berniedly and Bernar Mater									
Instructional goals of the course trends and developments in restorative Foundation for Oral Restoration."	e : To prov e dentistry	ide a revi and denta	ew o	of curraterial	ent tec s. The	hniques, rec eme "Establis	ent advar shing a Ba	nces, asic	
2	T	ш 4							
2. Frequency of course offering p		# 1	<del>  _</del>					Yes	No
3. Current length of course in hour		# 28			vert to			X	
4. Number of hours to be converted.		# 27	8	. Enn	ance?	?			X
5. Number of registered students		# 120	ļ						
6. Number of potential students th	I .								
could benefit from the course		# 450							
0 16 11 0 14 0 16					-				
			_				*********		
	Level 1	Level	2	Lev	el 3	Level 4			
	<u> </u>								
	Low )	Κ		High	)				
Other									
Labor Hours Estimation Method:	Short _	Long	Sy	nchr	onous	sX_			
10 7 / 10 / 1/2	C	ost Dat	a						
						<u>'</u>			
				****					
							<del></del>		
15. Total costs year 1 to 5 (Sum	of lines	10 throi	ugh	14)	\$ 15	0,950			
40. 4. 5. (1)		·			0.00	100			
			ָט ט	y 5)	\$ 30	,190			
•	•	•	O - 1						
9. If item 8 = Yes, Specify  Technology  WBT  CBT  VTT  Low X  High  Other  Cost Data  10. Total Cost Year One 11. Total Cost Year Flour 12. Total Cost Year Flour 13. Total Cost Year Flour 14. Total Cost Year Flour 15. Total costs year 1 to 5 (Sum of lines 10 through 14) 16. Average cost, years 1 to 5 (divide value in line 15 by 5) 17. Total potential students over a five year period. (multiply the number of potential students (item 6 above) by 5.)  18. Average cost per potential student over 5 year period. (divide the value in line 15 by the value in line 17)  Additional Hardware/Software Required  Proposed Enhancement(s)  Cost  Proposed Enhancement(s)  Cost  CBT  Level 2 Level 3 Level 4  Level 4  Level 2 Level 3 Level 4  Level 2 Level 3 Level 4   Level 4   Level 2 Level 3 Level 4   Level 2 Level 3 Level 4   Level 4   Level 2 Level 3  Level 4   Level 2 Level 3  Level 4   Level 4   Level 2 Level 3  Level 4   High  Cost Data  10. Total Cost 4  \$ 28,590  12. Total Cost Year True  \$ 28,590  13. Average cost, years 1 to 5 (divide value in line 15 by 5)  \$ 30,190  16. Average cost, years 1 to 5 (divide value in line 15 by 5)  \$ 30,190  17. Total potential students over a five year period.  (multiply the number of potential students (item 6 above) by 5.)  ### 2250  ### 2250  ### 2250  ### 2250  *## 2250  *## 250  *## 200 *## 2									
	tudont o	VOY E VO			# 22	50			
	tudent o	ver 5 yea	d1						
· •	the value	in line 1	7)		\$ 68				
(arriae the value in line to by	THE VAIGE	1111110 11	' /		Ψ 00				
Additio	nal Hard	ware/So	ftw	are R	equir	ed			
	- Tidi Tidi d	11410700		4.0.1			Total C	net	<del>.</del>
					000	t por anit	Total O		
Proposed Enhancement(s)	Cost								
r roposed Limancement(s)									
	\$								
Total Enhancement Octob	\$								
Total Enhancement Costs	\$								
	14"					198	est (Arthre		

Instructional Formats and Physical Requirements of Training
Course Name: Course Number:

Course Name:

Restorative Dentistry and Dental Materials

A0208

% of Course Using this Instructional Format	Format	Description	Physical Presence Required?
95%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
))))	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
	Student Verbal Presentations	Students present verbal information to the larger group.	?
2000 (100) (1000 (1000 (1000 (100) (1000 (1000 (100) (1000 (1000 (1000 (100) (1000 (1000 (100) (1000 (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (100) (100) (1000 (100) (1000 (100) (100) (100) (1000 (100) (	Student Procedural Presentations	Students present procedural information to the larger group.	?
ſ	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

**Course Information Summary Sheet** 

Course Name: Restorative Dentistr	y and Dent	al Materials	
Course Number: A0208			
Length of course - number of hours	of instruct	ion: - 28 hours	
		20 110013	
Number of Registered Students: 120			
Number of potential students that co	uld benefit	from this course: 450	
<b>Instructional goals of the course:</b> To trends and developments in restorative Basic Foundation for Oral Restoration."			
Frequency of Course Offering: Once	a year		
<b>Continuing Education Credit Offered</b>	? Yes	Number: 28	
For each item listed, check ✓ rov	v marked	"Check" if observed or document	ed.
Administrative Requirements	Check		Check
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	X	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities / collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises			
Testing Types  Objective knowledge tests		Derformance test hardware	
Objective knowledge tests Essay		Performance test hardware	
Performance test –"paper"		Oral testing	
Performance test – paper  Performance test – hardware		No testing/Student course	X
T enormance test – nardware			
Graphics	1		
2D graphics still	X	3D animation	T
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	
Communications			1
Audio		Open Discussion	T
Indirect discourse		Question and answer opportunities	
Assigned reading			
			1

**Course Technology Match Table** 

Course Name: Restorative Dentistry and Dental Materials			Technologies					
Administrative Requirements	Check	CBT	WBT	VTT	T	T		
Self pacing						****		
Group training			1					
On-demand availability								
Open entry / open exit								
Detailed student records	<b></b>	1						
Test Security	<del>                                     </del>	e e						
Multiple test forms	1							
Training / Instruction Approach					-			
Lecture / Text	X							
Live Presenters (guest speakers)	<u> </u>							
Self study			<u> </u>					
Demonstration								
Exhibit				<u> </u>		-		
Guided Discussion								
Simulation – knowledge based					-	-		
Simulation - hardware						-		
Problem solving exercises	<del> </del>							
Learning to Mastery		ļ						
Practice / drill	_					-		
Structured Review								
Feedback on performance			-					
Remediation			<b>-</b>					
Group activities/collaborative tasks	<del> </del>							
Testing Types				1				
Objective knowledge tests	1	1		1				
Essay	1		1					
Performance test –"paper" exercise						_		
Performance test – hardware simulation				_				
Performance test – hardware	-							
Oral testing					***	<del></del>		
No testing/Student course evaluation	X							
Graphics								
2D graphics still	V		<u> </u>	T	I			
3D graphics still	X			-				
2D animation								
3D animation						-		
2D interactive animation					-			
3D interactive animation	+	<u> </u>			_			
Pre recorded video /films		1						
Communications		l						
Audio	<u> </u>	T			1	1		
Indirect discourse					-	_		
Assigned reading					-	_		
Open Discussion					-	_		
					-			
Question and answer opportunities	1					1		

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Course Name: Restorative Dentistry and Dental Materials	Course Number: A0208							
Asynchronous Course	WEB Based Training							
Interactivity Factors	Level 1	Level 2	Level 3	Level 4				
Administrative Requirements								
Self pacing		>>>>>>	>>>>>>	>>>>>				
Group training								
On-demand availability		>>>>>>	>>>>>	>>>>>				
Open entry / open exit		>>>>>>	>>>>>>	>>>>>				
Detailed student records		>>>>>>	>>>>>>	>>>>>				
Test Security		>>>>>>	>>>>>>	>>>>>				
Multiple test forms	The same of		>>>>>	>>>>>				
Training / Instruction Approach								
Lecture / Text	X	>>>>>>	>>>>>>	>>>>>				
Live Presenters (guest speakers)	X							
Self study	· ·	>>>>>	>>>>>	>>>>>				
Demonstration			>>>>>	>>>>>				
Exhibit			>>>>>>	>>>>>				
Guided Discussion								
Simulation – knowledge based			>>>>>>	>>>>>				
Simulation - hardware				*******				
Problem solving exercises			>>>>>	>>>>>>				
Learning to Mastery		>>>>>	>>>>>>	>>>>>				
Practice / drill		>>>>>	>>>>>>	>>>>>				
Structured Review				>>>>>				
Feedback on performance			>>>>>	>>>>>				
Remediation	-		>>>>>>	>>>>>				
Group activities/collaborative tasks			7777777	777777				
Testing Types								
Objective knowledge tests	T	>>>>>	>>>>>	T				
Essay		7777777	7777777	>>>>>				
Performance test –"paper" exercise	_							
Performance test – hardware simulation			>>>>>	>>>>>>				
Performance test – hardware simulation	_							
Oral testing	_							
No testing/Student course evaluation	V	>>>>>>	>>>>>					
Graphics	X		/////////	>>>>>				
2D graphics still		>>>>>>	>>>>>					
3D graphics still	Х		>>>>>>	>>>>>>				
2D animation			>>>>>>	>>>>>				
3D animation			7777777	>>>>>				
2D interactive animation				>>>>>				
3D interactive animation				>>>>>				
Pre recorded video /films			*****					
Communications			>>>>>	>>>>>				
Audio	1		T 2222222	T 22222				
		>>>>>>	>>>>>	>>>>>				
Indirect discourse								
Assigned reading		>>>>>>	>>>>>	>>>>>				
Open Discussion								
Question and answer opportunities								

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Course Name: Restorative Dentistry and Dental Materials	Course Number: A0208							
Asynchronous Course	Computer Based Training							
Interactivity Factors	Level 1	Level 2	Level 3	Level				
Administrative Requirements								
Self pacing		>>>>>>	>>>>>>	>>>>>				
Group training				1				
On-demand availability		>>>>>>	>>>>>>	>>>>>				
Open entry / open exit		>>>>>>	>>>>>	>>>>>				
Detailed student records								
Test Security								
Multiple test forms			>>>>>	>>>>>				
Training / Instruction Approach								
Lecture / Text	Х	>>>>>>	>>>>>>	>>>>>				
Live Presenters (guest speakers)		1						
Self study		>>>>>>	>>>>>>	>>>>>				
Demonstration			>>>>>>	>>>>>				
Exhibit			>>>>>>	>>>>>				
Guided Discussion		and the second						
Simulation – knowledge based			>>>>>	>>>>>				
Simulation - hardware								
Problem solving exercises		>>>>>	>>>>>>	>>>>>				
Learning to Mastery		>>>>>>	>>>>>>	>>>>>				
Practice / drill		>>>>>>	>>>>>>	>>>>>				
Structured Review			>>>>>>	>>>>>				
Feedback on performance		>>>>>	>>>>>	>>>>>				
Remediation			>>>>>>	>>>>>				
Group activities/collaborative tasks								
Testing Types								
Objective knowledge tests		>>>>>	>>>>>>	>>>>>				
Essay								
Performance test –"paper" exercise			>>>>>>	>>>>>				
Performance test – hardware simulation				>>>>>				
Performance test – hardware								
Oral testing								
No testing/Student course evaluation	χ	>>>>>>	>>>>>>	>>>>>				
Graphics		L		L				
2D graphics still	Х	>>>>>>	>>>>>>	>>>>>				
3D graphics still			>>>>>>	>>>>>				
2D animation			>>>>>>	>>>>>				
3D animation	W			>>>>>				
2D interactive animation				>>>>>				
3D interactive animation								
Pre recorded video /films			>>>>>>	>>>>>				
Communications			I					
Audio		>>>>>>	>>>>>>	>>>>>				
Indirect discourse								
Assigned reading		>>>>>>	>>>>>>	>>>>>				
Open Discussion								
Question and answer opportunities								

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support tha factor.

Course Name: Restorative Dentistry and Dental Materials	Course Number:	AU2U8
Synchronous Course	Video Te	eletraining
Interactivity Factors	Level 1 Low	
Administrative Requirements		
Self pacing		
Group training		>>>>>>
On-demand availability		
Open entry / open exit		
Detailed student records		
Test Security		>>>>>>
Multiple test forms		>>>>>>
Training / Instruction Approach		
Lecture / Text	Х	>>>>>>
Live Presenters (guest speakers)		>>>>>
Self study		
Demonstration		>>>>>
Exhibit		>>>>>>
Guided Discussion	The second second	
Simulation – knowledge based		>>>>>
Simulation - hardware		The state of the s
Problem solving exercises		
Learning to Mastery		
Practice / drill		
Structured Review		
Feedback on performance		
Remediation		
Group activities/collaborative tasks		
Testing Types		
Objective knowledge tests		
Essay		
Performance test - "paper" exercise		
Performance test – hardware simulation		
Performance test – hardware		
Oral testing		
No testing/Student course evaluation	Х	>>>>>
Graphics	<u> </u>	L
2D graphics still	Х	>>>>>
3D graphics still		>>>>>>
2D animation		>>>>>
3D animation		>>>>>>
2D interactive animation		
3D interactive animation		
Pre recorded video /films		>>>>>
Communications	1	
Audio		>>>>>
Indirect discourse		
Assigned reading		>>>>>
Open Discussion		
Question and answer opportunities		

Shaded blocks indicates factors NOT supported by that level of technology Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

**Short Worksheet: Development Time** 

	Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction									
Co	Course Name: Restorative Dentistry Media: Web Based Training Level: 1									
		Analysis	Design	Development	Implementation	Sums				
1	Percentage of Time Spent by Task Type by Level	.40	.20	,25	.15					
2	Multiply line 1 by average * hours100									
3	Average hrs. per phase	40	20	25	15					
4	Adjustments ** for hours per phase Use 1 for added time and for less time	.3	.5	.8	.3					
5	Adjusted hrs. per phase. Multiply line 3 by line 4	12	10	20	4.5	of the second se				
	Total Labor Hours - sum across line 5					47				

<sup>\*</sup> Average hours per hour of instruction

\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

**Short Worksheet: Development Time** 

	ort Worksheet, Deve										
Sh	Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction										
Co	Course Name: Restorative Dentistry Media: Computer Based Training Level: 1										
		Analysis	Design	Development	Implementation	Sums					
1	Percentage of Time Spent by Task Type by Level	.40	.20	,25	.15						
2	Multiply line 1 by average * hours100										
3	Average hrs. per phase	40	20	25	15	ingadesti i. Mgadesti i.					
4	Adjustments ** for hours per phase Use 1 for added time and for less time	.3	.5	.8	.3						
5	Adjusted hrs. per phase. Multiply line 3 by line 4.	12	10	20	4.5	2 · · · · · · · · · · · · · · · · · · ·					
	Total Labor Hours - sum across line 5	:				47					

<sup>\*</sup> Average hours per hour of instruction

\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

#### **Course Cost Estimation Worksheet**

	Course Cost Estimation Worksheet  Course Cost Estimate Worksheet: Web Based Training						
Course Name: Restorative Dentistry Course Number: A0208							
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs. 47					
2	Average hourly labor cost in dollars	\$ 50					
3	Multiple line 1 by line 2 and put the results on line 3.	\$ 2350					
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs. 27					
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5	Hrs. 19					
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery <b>OR</b> line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	\$ 44,650					
	Do not use lines 7 to 12 for any costs that are to be shared.						
7	Infrastructure Costs	\$					
8	Recurring Costs	\$					
9	Delivery Labor Costs	\$					
10	Travel Costs	\$					
11	Miscellaneous Costs	\$					
12	Add line 7 to 12	\$					
13	Total Cost - Add lines 6 and 12.	\$					
14	Number of potential students	# 450					
15	Average Cost Per Student:: Divide line 13 by line 14	\$ 100					

# **Course Cost Estimation Worksheet**

Course Cost Estimate Worksheet: Computer Based Training								
	I <b>rse Name:</b> Restorative Dentistry Dental Materials	A0208						
1	Write the sum from Refined Estima estimated number of hrs. per hr. of	Hrs. 47						
2	Average hourly labor cost in dollars	6	\$ 50					
3	Multiple line 1 by line 2 and put the	results on line 3.	\$ 2350					
4	Actual number of classroom equiva converted or developed.		Hrs. 27					
5	Compression: If conversion to asymptotic multiply line 4 by .7 (seven tenths) on line 5. If not a conversion to asy skip line 5	Hrs. 19						
6	Multiply line 3 by line 5 if a conversion asynchronous delivery <b>OR</b> line 3 by conversion to asynchronous deliver on line 6.	\$ 44,650						
Do not use lines 7 to 12 for any costs that are to be shared.								
7	Infrastructure Costs	\$						
8	Recurring Costs		\$					
9	Delivery Labor Costs		\$					
10	Travel Costs		\$					
11	Miscellaneous Costs	\$						
12	Add line 7 to 12	\$						
13	Total Cost - Add lines 6 and 12.	\$						
14	Number of potential students	# 450						
15	Average Cost Per Student:: Divide	\$ 100						
ist.								

**Calculation of Synchronous Training Costs** 

Course Name: Restorative Dentistry and Dental Materials	Course Number: A0208
Labor	Costs:
Development Cost = (320 hrs.) x average hourly	
rate (\$50)	\$ 16,000
Course Managers Studio Cost = (Total studio time	¥ 10,000
+ 1 hour for each day the course is offered) x	
number of times course is presented x average	
nourly rate (\$50)	\$ 1550
Non-local Labor Cost = Number of non-local	
presenters) x (length of the course in days +1) x	
number of times offered x average daily rate (\$400	\$ 8,000
Local Labor Cost + Number of local presenters x	
average hourly rate (\$50) X 2 X number of times	
course is offered.	\$ 700
Total Labor Costs	\$ 26,250
Additional Cost (any co	osts not captured above)
Total Per Diem =	
length of course in days plus one	
ravel day x number of non-local presenters) x	
(local daily per diem rate) x number of time the	
course will be presented.	\$ 2,540
Total Airfare = (Average Round Trip Airfare x	
number of non-local presenters) x number of times	
the course will be presented.	\$ 3,900
Total dollar amount paid as honorariums	\$ 3,900
(Other)	
Total Estimated Cost: Add Total Per Diem,	Airfare, Labor Costs, and Additional Costs.
Total Labor Costs	\$ 26,250
Total Per Diem	\$ 2,540
Total Airfare	\$ 3,900
Total paid as honorariums	\$ 3,900
other)	\$ N/A
TOTAL COURSE COST Year 1	\$ 36,590
Cost Per Student = Total course costs divided by	7 77,000
potential number of students	\$ 82
Jolential number of Students	T ==

Cost Estimate for a Single Course Name: Restorative D Materials				ourse Numb				
Technology Selected	Leve	11	Level 2	Level 3	Level 4			
WBT X								
CBT								
VTT	Low			High	d			
Other								
Cost Factors		Τ	Values		So	IIrca		
Labor hours year 1		893			Source			
2. Labor hours year 2		893		 Course Technology Match Table				
3. Labor hours year 3			93		Technology Interactivity Factors Table			
4. Labor hours year 4		893		- Toomieragy meraentity radiore rabio				
5. Labor hours year 5		I	93	1				
6. Subtotal		44	65					
7. Average labor cost		\$5	0					
8. Total labor Cost over 5 yr. period.  Multiply line 6 by line 7		\$223,250						
Additional Development/ De	livery C	ost	By Year					
9. Cost year 1				Data to Support Cost Analysis Worksheet				
10. Cost year 2		\$						
11. Cost year 3		\$						
12. Cost year 4		\$						
13. Cost year 5		\$						
<ol> <li>Total Additional Costs .         Sum lines 9 to 13 and enter line 14     </li> </ol>	er on	\$ (	)					
15. Total Course Cost.  Add lines 8 and 14 and enter on line 15		\$ 223,250						
16. Average cost over 5 years.  Divide line 15 by 5 and enter on line 16.		\$ 44,650						
17. Potential students year 1		450		From Course Information Summary Sheet				
18. Total potential students ye 5 (multiply line 17 by 5. a enter on line 18)	nd	22	50					
19. Average cost per student yr. 1 to 5. (divide line 15 by line 18 and enter on line 19)			100	Round up to the nearest whole dollar				

Cost Estimate for a Single Course Name: Restorative Der					eriod mber: A02	208		
Materials	•							
Technology Selected	Leve	11	Level 2	Level 3	Level 4			
WBT								
CBT	X							
VTT Low				High				
Other								
Cost Factors			Values			Source		
1. Labor hours year 1		893						
2. Labor hours year 2			93		Course Technology Match Table Technology Interactivity Factors Table			
3. Labor hours year 3			93	recnn				
4. Labor hours year 4			93					
5. Labor hours year 5			93					
6. Subtotal			65					
7. Average labor cost		\$50						
8. Total labor cost over 5 yr. pe	riod.	\$223,250						
Multiply line 6 by line 7								
Additional Development/ Delivery Co			By Year		0			
9. Cost year 1				Data t	Data to Support Cost Analysis Worksheet			
10. Cost year 2		\$						
11. Cost year 3		\$						
12. Cost year 4		\$						
13. Cost year 5 14. Total Additional Costs .		Ф						
Sum lines 9 to 13 and enter	\$0							
line 14			J					
15. Total Course Cost.								
Add lines 8 and 14 and enter	on	\$ 223,250						
line 15	OH							
16. Average cost over 5 years.								
Divide line 15 by 5 and enter	on	\$ 44,650						
line 16.			,					
17. Potential students year 1			50	From	From Course Information Summary Sheet			
18. Total potential students year	1 to			1.0		The sammary on out		
5 (multiply line 17 by 5, and			:50					
enter on line 18)								
19. Average cost per student yr	. 1 to							
5. (divide line 15 by line 18	3 and	\$	100	Round	Round up to the nearest whole dollar.			
enter on line 19)								

Course Name: Restorative De Materials				burse Number: A0208					
						74.0			
Technology Selected	Leve	1 1	Level	2	Level 3	Level 4			
WBT	LCVC	' '	Level		Level 3	LCVCI 4			
CBT	<del>                                     </del>								
VTT	Low	X	<u> </u>		High				
Other	2000				riigii				
0.1.01	<u> </u>								
Cost Factors		Values				Source			
1. Labor hours year 1		525							
2. Labor hours year 2		365			Course	Technology	y Match Table		
3. Labor hours year 3		36					ctivity Factors Table		
4. Labor hours year 4		36				Toomiology interactivity Factors Table			
5. Labor hours year 5		36							
6. Subtotal		1,985							
7. Average labor cost		\$50							
8. Total labor cost over 5 yr. p	eriod	\$ 99,250							
Multiply line 6 by line 7									
Additional Development/ Deli	verv Co	st	Bv Ye	ar					
9. Cost year 1		\$ 10.340			Data to	Support Co	ost Analysis Worksheet		
10. Cost year 2			10,340			опрот ос	vac i indigate Voltabilia		
11. Cost year 3		\$ 10,340							
12. Cost year 4		\$ 10,340							
13. Cost year 5		\$ 10,340					AMA		
14. Total Additional Costs.									
Sum lines 9 to 13 and enter on									
line 14			\$ 51,700						
15. Total Course Cost.									
Add lines 8 and 14 and ente	er on								
line 15		\$ 150,950							
16. Average cost over 5 years.									
Divide line 15 by 5 and enter on									
line 16.			30,190						
17. Potential students year 1			450		From Course Information Summary Sheet				
18. Total potential students yea									
5 (multiply line 17 by 5. an									
enter on line 18)		2250							
19. Average cost per student y									
5. (divide line 15 by line 18 and					Round u	und up to the nearest whole dollar.			
enter on line 19)	\$ 68								

**Note:** For VTT Use 320 hrs prep time for year one and 160 hrs prep time for years 2 to 5 Labor hours use the following

Labor Hours = Prep time + (total studio time + 1 hr for every day the course is offered) + (number of non-local presenters) x (length of course in days + 1 travel day x 8) x (the number of times the course is offered) + (number of local presenters x 2) x number of times the course is offered Additional Costs = (total air fair + total per diem + total honorariums) x 5

# 1998 Military Veterinary Medical Seminar Conversion Analysis

#### 1998 Military Veterinary Medical Seminar

The purpose of the course is to update attendees on Veterinary Corps issues and technical skills. The theme of the seminar was "Support to Contingencies-Military and Civilian."

#### Course Content Stability: Low

The focus is on the latest developments in the area, and therefore the topics change each year.

#### General Presentation Style: Distributive ...

This course could best be described as a "conference". That is, the information was delivered using a lecture format as the primary vehicle in which one instructor presented information to many learners. Approximately 95% of the instruction was delivered using a basic lecture format. Approximately 2% used film/video as part of the presentation, there was one demonstration/shop activity and one poster session.

#### Instructional Aids:

Most of the speakers used overhead slides, 35mm slides, or PowerPoint presentation files to aid them in their instruction.

#### Hands-on Activities:

None

#### Degree of Instructional Interaction:

There were opportunities for the students to ask guestions, and the degree to which this interaction was engaged in varied from instructor to instructor. In general, these questions concerned points of clarification, and served to allow the learner to better understand how to apply the information in a real world situation. The question/answer periods were generally limited to an exchange between an individual student and the instructor, such that the interaction did not expand into a general discussion period involving several students.

# Relevant Instructional Value: Low

The assessment or "Low Instructional Value" is based strictly on the assessment that less than 30% of the sessions appeared to support the stated objective/theme of the conference. Of 24 general sessions designed either exclusively for officer attendance or in combination with warrant officers and 91 R/T NCOs, only 11 appeared to relate to the "Contingencies and Disasters" theme. Of the 26 Saturday breakout sessions designed primarily for officers and warrant officers. only six appeared to be related to the theme. Of the 15 sessions on the first day of the course designated for officers and warrant officers, only two appeared to be loosely related to the theme. This equates to 29.2% of the sessions that appeared to relate to the objective. When broken down into hours, this equates to approximately nine of the 30 hours. Additionally, the welcome letter to attendees stated that in addition to the presentations supporting the seminar theme. ... subject matter experts in the functional areas of our VETCOM mission will provide numerous presentations, but they are only intended to be catalysts to promote discussion and information sharing." This course provides a significant amount of information, but with a goal of making the listeners familiar with the topic. Should the students wish to apply any of the information that was provided, it is doubtful that this could be wisely accomplished without further researching the topic independently. The main thing to be gained from attending this course was an opportunity for informal networking, and making contacts among peers.

#### Recommendation:

Convert portions relating to the theme to Web-Based Training. Those portions that do not meet the objectives of the theme can be eliminated or presented via the web in a non-learning format. Because the content of this course will change every year, the actual portion to be designed as distance learning versus that presented in another format will have to be made during the analysis phase.

This "course" is actually more of a conference insofar as there is no structured set of intended learning outcomes unified by a specific theme. The information itself could easily be presented in the form of Web Based training accompanied by an electronic journal. As such, the entire population could have access to the information, and the presenters could have an "electronic publication" to add to their vitas. In this way, the educational value of the course could be increased insofar as students could participate in interactive activities and be assessed using a distance learning technology.

## DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: 1998 Military Veterinary Medical Seminar			Course Number: A 0306				
1. Instructional goals of the	course: The	purpose of	the course	is to update attende	es on Veterinary	Corps	
issues and technical skills. Th	e theme of th	ne seminar v	vas "Suppo ————	rt to Contingencies-N	Military and Civili	an."	
O Francisco of accuracy of acc			1				
<ol> <li>Frequency of course offering</li> <li>Current length of course in</li> </ol>		30	7 Conv	ant to DLO	Yes	No	
Number of hours to be con-		91	8. Enhar	ert to DL?	X		
Number of registered stude		360	o. Elliai	ice ?		X	
Number of potential studen		500					
benefit from the course	is that could	300					
						<u> </u>	
9. If item 8 = Yes, Specify					1-94-4		
Technology	Level 1	Level 2	Level 3	Level 4			
WBT		Х					
CBT					PARTY II -		
VTT	Low	nigate	High				
Other							
Labor Hours Estimation Met	hod: Short _	X Long	Synch	ronous			
		7	• .		······································		
Cost Data		A. dela		No. 10 April			
10. Total Cost Year One				\$29,295			
11. Total Cost Year Two				\$14,648			
12. Total Cost Year Three				\$14,648			
13. Total Cost Year Four				\$14,648			
14. Total Cost Year Five				\$14,648			
15. Total costs year 1 to 5 (	Sum of lines	10 through	14)	\$87,887			
16. Average cost, years 1 to 5	•		<i>,</i>	\$17,578			
17. Total potential students ov			nultiply the	2,500			
number of potential students [i	-						
18. Average cost per potent	tial student o	over 5 year	period.	\$35.16			
(divide the value in line 15 by t	ne value in iii	ne 17.)					
Additional Handware Coffee	ana Danisha	J					
Additional Hardware/Softw Item:	are Required	<b>1</b>	***************************************	Cast man smit	T-4-1		
iteiii.				Cost per unit	Total Cost		
					OUST		
Proposed Enhancements		Cost					
Electronic Journal							
		7					
Total Enhancement Costs							
	LINE LETT					:	

Only nine of the 30 hours appeared to support the objective and theme of the seminar.

Instructional Formats and Physical Training Requirements

Course Name: 1998 Military Veterinary Medical
Seminar

Course Number: A 0306

% of Course Using this Instructional Format	Format	Description	Physical Presence Required?			
94%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.				
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No			
2%	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No			
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?			
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?			
2%	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?			
	Student Verbal Presentations	Students present verbal information to the larger group.	?			
9998888888	Student Procedural Presentations	Students present procedural information to the larger group.	?			
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?			
2%	Shop Activity	Hands-on technical tasks/procedures.	?			
	Lab Activity	Hands-on laboratory tasks/procedures.	?			

**Course Information Summary Sheet** 

Course Name: 1998 Military Veterinar	y Medicai Se	eminar	
Course Number: A 0306			
ength of course - number of hours	of instruct	ion: 30	
Number of Registered Students: 36	0		
Number of potential students that co	ould benefit	t from this course: 500	
nstructional goals of the course: Th	e purpose of	the course is to update attendees on Veteri inar was "Support to Contingencies-Military	nary and
requency of Course Offering: Annu	ual		
Continuing Education Credit Offered	!? Yes	Number: 15	
or each item listed check / ro	w marked	"Check" if observed or documen	tod
Administrative Requirements	Check	Oneck in observed of documen	Check
Self pacing	Officer	Detailed student records	Cileci
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit	-	Watthe test forms	
Fraining / Instruction Approach			
Lecture / Text	1	Learning to Mastery	1
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration	1	Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	
Simulation (roll play, in-basket)	-	Croup activities/collaborative tasks	
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test_hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval	
Performance test – hardware		No testing/Student course eval	<u> </u>
Graphics			
2D graphics still	✓	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	1
Communications			
Audio		Open Discussion	
Indirect discourse		Question and answer opportunities	

**Course Technology Match Table** 

Course 1998 Military Veterinary Medical	Technologies					
Seminar	Observation	ODT			7	
Administrative Requirements	Check	СВТ	WBT	VTT		
Self pacing						
Group training			1. 1. 1.			
On-demand availability						
Open entry / open exit						
Detailed student records	ļ .					
Test Security						
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	<b>/</b>					
Live Presenters (guest speakers)						
Self study						
Demonstration	✓					
Exhibit		1				
Guided Discussion						
Simulation – knowledge based						
Simulation - hardware						
Problem solving exercises						
Learning to Mastery						
Practice / drill						
Structured Review						
Feedback on performance						
Remediation						
Group activities/collaborative tasks						
Testing Types						
Objective knowledge tests						
Essay						
Performance test "paper" exercise						
Performance test – hardware simulation						
Performance test – hardware						
Oral testing						
No testing/Student course evaluation	<b>√</b>					
Graphics						•
2D graphics still	<b>1</b>					
3D graphics still						
2D animation						
3D animation						
2D interactive animation						
3D interactive animation						
Pre recorded video /films	1					
Communications	•			<u> </u>		
Audio	T					
Indirect discourse						
Assigned reading						1
Open Discussion		1000	<u> </u>			
Question and answer opportunities						1

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

**Technology Interactivity Factors** 

Course Name: 1998 Military Veterinary Medical Seminar	Course Number: A0306						
Asynchronous Course	WEB Based Training						
Interactivity Factors	Level 1	Level 2	Level 3	Level 4			
Administrative Requirements							
Self pacing		>>>>>>	>>>>>>	>>>>>>			
Group training							
On-demand availability		>>>>>>	>>>>>>	>>>>>>			
Open entry / open exit		>>>>>>	>>>>>>	>>>>>>			
Detailed student records		>>>>>>	>>>>>>	>>>>>>			
Test Security		>>>>>>	>>>>>>	>>>>>>			
Multiple test forms			>>>>>>	>>>>>>			
Fraining / Instruction Approach							
Lecture / Text	1	>>>>>>	>>>>>>	>>>>>>			
Live Presenters (guest speakers)		i					
Self study		>>>>>>	>>>>>	>>>>>>			
Demonstration		1	>>>>>>	>>>>>			
Exhibit	-		>>>>>>	>>>>>			
Guided Discussion							
Simulation – knowledge based			>>>>>>	>>>>>			
Simulation - hardware	_						
Problem solving exercises			>>>>>>	>>>>>			
Learning to Mastery		>>>>>	>>>>>>	>>>>>>			
Practice / drill		>>>>>	>>>>>>	>>>>>>			
Structured Review				>>>>>>			
Feedback on performance			>>>>>	>>>>>>			
Remediation	-		>>>>>>	>>>>>>			
Group activities/collaborative tasks							
Testing Types		de la companya della companya della companya de la companya della					
Objective knowledge tests	1	>>>>>>	>>>>>	>>>>>			
Essay	1.						
Performance test –"paper" exercise			>>>>>>	>>>>>>			
Performance test – paper exercise  Performance test – hardware simulation			7777777	/////////			
Performance test – hardware							
Oral testing							
No testing/Student course evaluation		>>>>>>	>>>>>				
Graphics				>>>>>			
2D graphics still		>>>>>					
3D graphics still	7	////////	>>>>>>	>>>>>>			
2D animation			>>>>>>	>>>>>>			
3D animation			>>>>>	>>>>>>			
				>>>>>>			
2D interactive animation	-			>>>>>			
3D interactive animation							
Pre recorded video /films		<b> </b>	>>>>>	>>>>>			
Communications	T	T 22222	T	Г			
Audio		>>>>>>	>>>>>	>>>>>			
Indirect discourse	. *						
Assigned reading		>>>>>>	>>>>>>	>>>>>>			
Open Discussion			N.				
Question and answer opportunities							

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

**Technology Interactivity Factors** 

Course Name: 1998 Military Veterinary Medical Seminar	Course Number: A0306					
Asynchronous Course	Computer Based Training					
Interactivity Factors	Level 1	Level 2	Level 3	Level 4		
Administrative Requirements						
Self pacing		>>>>>>	>>>>>>	>>>>>		
Group training						
On-demand availability		>>>>>>	>>>>>>	>>>>>		
Open entry / open exit		>>>>>>	>>>>>>	>>>>>		
Detailed student records		****	100			
Test Security						
Multiple test forms			>>>>>>	>>>>>		
Fraining / Instruction Approach						
Lecture / Text	1	>>>>>>	>>>>>>	>>>>>		
Live Presenters (guest speakers)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					
Self study		>>>>>>	>>>>>>	>>>>>		
Demonstration		1	>>>>>>	>>>>>		
Exhibit			>>>>>>	>>>>>		
Guided Discussion						
Simulation – knowledge based			>>>>>>	>>>>>		
Simulation - hardware				1		
Problem solving exercises		>>>>>>	>>>>>>	>>>>>		
Learning to Mastery		>>>>>>	>>>>>>	>>>>>		
Practice / drill		>>>>>>	>>>>>>	>>>>>		
Structured Review			>>>>>>	>>>>>		
Feedback on performance		>>>>>>	>>>>>>	>>>>>		
Remediation			>>>>>>	>>>>>		
Group activities/collaborative tasks						
Testing Types						
Objective knowledge tests		>>>>>>	>>>>>>	>>>>>		
Essay						
Performance test "paper" exercise			>>>>>>	>>>>>		
Performance test – hardware simulation	14			>>>>>		
Performance test – hardware						
Oral testing						
No testing/Student course evaluation	1	>>>>>>	>>>>>>	>>>>>		
Graphics						
2D graphics still	1	>>>>>>	>>>>>>	>>>>>		
3D graphics still	Garage Control		>>>>>>	>>>>>		
2D animation			>>>>>>	>>>>>		
3D animation				>>>>>		
2D interactive animation	1			>>>>>		
3D interactive animation						
Pre recorded video /films		1	>>>>>	>>>>>		
Communications			1			
Audio		>>>>>	>>>>>	>>>>>		
Indirect discourse						
Assigned reading		>>>>>	>>>>>	>>>>>		
Open Discussion		l		L		
Question and answer opportunities						

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

### **Short Worksheet: Development Time**

	Media: Web Based			Level: 2		
	Analysis	Design	Development	Implementation	Sum	
Percentage of Time Spent by Task Type     by Level	0.40	0.20	0.25	0.15		
2 Multiply line 1 by average * hours			592	y a series	. "	
200						
3 Average hrs. per phase	80.00	40.00	50.00	30.00		
4 Adjustments ** for hours per phase. Use 1 for added time and for less time	0.30	0.50	0.80	0.30		
5 Adjusted hrs. per phase. Multiply line 3 by line 4	24.00	20.00	40.00	9.00		
Total Labor Hours - sum across line 5					93.00	

<sup>\*</sup> Average hours per hour of instruction

\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

### **Short Worksheet: Development Time**

Course Name: 1998 Military Veterinary Med	ical Semina	ar			
	Media: CE	BT Multim	edia	Level: 2	
	Analysis	Design	Development	Implementation	Sum
1 Percentage of Time Spent by Task Type by Level	0.40	0.20	0.25	0.15	
2 Multiply line 1 by average * hours	14	Į.	pes e		
200				3.5	
3 Average hrs. per phase	80.00	40.00	50.00	30.00	7.
4 Adjustments ** for hours per phase. Use 1 for added time and for less time	0.30	0.50	0.80	0.30	
5 Adjusted hrs. per phase. Multiply line 3 by line 4	24.00	20.00	40.00	9.00	3
Total Labor Hours - sum across line 5			in the state of th		93.00

<sup>\*</sup> Average hours per hour of instruction

<sup>\*\*</sup> Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

# **Course Cost Estimation Worksheet**

50.	Course Cost Estimation Worksheet: Web Based Training		
	rse Name: 1998 Military Veterinary Medical Course Number: A0416		
Semi			
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	\$	50.00
3	Multiple line 1 by line 2 and put the results on line 3.	\$	4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	9
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	6.3
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	\$	29,295.00
	Do not use lines 7 to 12 for any costs that are to be shared.	e just	ri j
7	Infrastructure Costs	\$	
8	Recurring Costs	\$	
9	Delivery Labor Costs	\$	
10	Travel Costs	\$	
11	Miscellaneous Costs	\$	
12	Add line 7 to 12	\$	0.00
13	Total Cost - Add lines 6 and 12.	\$	29,295.00
14	Number of potential students.	#	500
15	Average Cost Per Student Divide line 13 by line 14	\$	58.59

#### **Course Cost Estimation Worksheet**

S05. 1	Course Cost Estimation Worksheet: CBT Multimedia		
I	rse Name:1998 Military Veterinary Medical Course Number: A 0306 ninar		<u></u>
	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2 /	Average hourly labor cost in dollars	\$	50.00
3 1	Multiple line 1 by line 2 and put the results on line 3.	\$	4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	9
(	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	6.3
	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	\$	29,295.00
1 1	Do not use lines 7 to 12 for any costs that are to be shared.	.,	
7	nfrastructure Costs	\$	
8 I	Recurring Costs	\$	
9	Delivery Labor Costs	\$	
10	Travel Costs	\$	
11	Miscellaneous Costs	\$	
12	Add line 7 to 12	\$	0.00
13	Total Cost - Add lines 6 and 12.	\$	29,295.00
14	Number of potential students.	#	500
15	Average Cost Per Student Divide line 13 by line 14	\$	58.59
:			

# Cost Estimate for a Single Course Over a Five Year Period

Course Name: 1998 Military Vete Seminar			umber: A 0	0306	
Technology Selected	Level 1	Level 2	Level 3	Level 4	
WBT		X			
CBT					
VTT	Low		High		
Other					
Cost Factors		Values			
		Values		Source	
1. Labor Hours Year 1		586			chnology Match Table, y Interactivity Factors Table
2. Labor Hours Year 2		293		100///10/09	y mordonivity i dotors i dolo
3. Labor Hours Year 3		293		1	
4. Labor Hours Year 4		293		-	
5. Labor Hours Year 5		293		-	
6. Subtotal		1,758			
7. Average Labor Cost per hour		\$50 \$87,900			
8. Total labor cost over a 5 year p Multiply line 7 by line 6.	8. Total labor cost over a 5 year period. Multiply line 7 by line 6.				
Additional Development Costs	By Year				
9. Cost year 1		\$0		Data to Su	pport Cost Analysis Worksheet
10. Cost year 2		\$0			
11. Cost year 3		\$0			
12. Cost year 4		\$0			
13. Cost year 5		\$0			
14. Total additional costs. Sum li and enter on line 14	nes 9 to 13	\$0			
15. Total Course Cost. Add lines and enter on line 15.	8 and 14	\$87,900			
16. Average cost over 5 years. Divide line 15 by 5 and enter on line 16.		\$17,580			100 to
17. Potential students year 1.		500		From Coul	rse Information Summary Sheet
18. Total potential students year 1 to 5 (multiply line 17 by 5 and enter on line 18)		2500			
19. Average cost per student year 1 to 5 (Divide line 15 by line 18 and enter on line 18)		\$35		Round up	to the nearest whole dollar.

# Military Veterinary Foreign Animal Diagnostics Course Analysis

#### MILITARY VETERINARY FOREIGN ANIMAL DISEASE DIAGNOSTICS

#### Course Purposes

To teach military veterinarians about various foreign animal diseases that are a serious threat to the United States' animal industry through the clinical presentation of these diseases and through lectures on their role in the event of a foreign animal disease outbreak.

#### Course Content Stability:

#### Hiai

Although new findings can be presented, the general content of the course remains relatively stable. Changes may be made to reflect new threats from various diseases that may enter the United States.

#### General Presentation Style:

#### Lecture/Lab/Hands-on

The course was mostly lecture-format, followed by laboratory sessions. Interjected between the lecture/labs were a variety of seminars, panel discussions, and case studies.

#### institutational Aidesi

Overhead slides, videos, and lab equipment were used to fully prepare the vets in their abilities to recognize these diseases.

#### Hands-on Activities:

Hands-on laboratory activities are necessary to develop a full understanding of the progression of each disease. Students see the disease in the live animal and watch clinical signs develop day to day.

#### Degree of Instructional Interaction:

Students participated in the evaluation and necropsy of the animals.

#### Relevant Instructional Value:

#### High

The FADDL laboratory is the only location in the US where these diseases can be observed and studied due to their highly contagious nature. This prepares the vets to recognize harmful diseases whose presence could cause serious illness.

#### Recommendation:

#### Do not convert the course to a distance learning format.

It is doubtful that this could take the place of actual lecture time since the lab-experience benefits from a contiguous presentation of the relevant material (i.e. the students review the material relevant to a particular lab exercise immediately before participating). Whether any lecture could be *replaced* would have to be decided by a Subject Matter Expert (a veterinarian that teaches the course).

#### Requirements of Distance Learning Technology

At the present time, students receive reading materials to complete before attending this course. This pre-course material could be converted to a multimedia format with the intent to *supplement* and *enhance* the learning experience. No cost or time savings would be expected from such a conversion.

# Patient Administration Symposium Conversion Analysis

#### Patient Administration Symposium

The purpose of this course is to provide conceptual and operational overviews of the changing military health system to leaders in the Patient Administration Community and to provide officers the opportunity to receive hands-on training on new/emerging health systems and applications...

#### Course Content Stability: Low

Due to technological advances, the material presented is based on current systems and trends. Some of the topics will remain the same, but information is updated and new capabilities of systems are demonstrated.

### General Presentation Style: Distributive

The course was primarily lecture format with an opportunity for questions and answers. In some cases the lecture was supported by a demonstration.

#### Institute total Alds

The majority of the speakers used PowerPoint slides to support their presentations. A significant portion of the speakers also provided the students with handouts. Laptop computers were used in two presentations.

#### Hands-on Activities:

There were two (7% of course instructional time) hands-on learning experiences focusing on the implementation of new or revised software programs. These could easily be simulated (or emulated) in either a CBT or WBT environment.

#### Degree of Instructional Interaction

There was an opportunity to ask questions following presentations. The exchanges were informational.

#### Relevant Instructional Value: Moderate

Although the material presented reflected the latest information available, there was a lack of formal objectives and a clear focus in the curriculum.

#### Recommendation

Convert to Web-Based Training.

The instructional value of this course would benefit from delivery on a distance learning technology that allowed for one-to-many communications, and an asynchronous delivery. Handson activities in this particular case lend themselves easily to a Web environment since they involved instruction on computer software.

#### DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: Patient Admin	posium	Course N				
Instructional goals of the chealth system to leaders in the receive hands-on training on ne	Patient Admi	nistration C	ommunity a	and to provide office	ws of the cha ers the opport	nging military unity to
2. Frequency of course offering	ner vear	1		AND THE RESERVE AND THE RESERV	Yes	No
<ol> <li>Current length of course in h</li> </ol>		23	7. Conve	art to DL2	X	INO
Number of hours to be conv		23	8. Enhan		^	X
<ol> <li>Number of registered studer</li> </ol>		54	O. Liman	106 :		
Number of potential students benefit from the course		150				
9. If item 8 = Yes, Specify						and the same of th
Technology	Level 1	Level 2	Level 3	Level 4		***************************************
WBT		X			- 1000	
CBT			****		* *************************************	
VTT	Low		High	1		
Other		Ţ				*****
Labor Hours Estimation Meth	od: Short	X_ Long	Synchi	ronous		V-100 PA-00-1
The second secon			<del></del>	7.00		
Cost Data		<del></del>				
10. Total Cost Year One				\$103,463		3416
11. Total Cost Year Two				\$103,463		
12. Total Cost Year Three				\$103,463		
13. Total Cost Year Four				\$103,463		10.00
14. Total Cost Year Five				\$103,463		
15. Total costs year 1 to 5 (S	um of lines	10 through	14)	\$517,313		W. C
			/			
16. Average cost, years 1 to 5	(Divide value	in line 15 k	ov 5)	\$103,463		
17. Total potential students ovenumber of potential students [it	er a five year	period. (m	• '	750		
<b>18.</b> Average cost per potential (divide the value in line 15 by the			period.	\$690		
Additional Hardware/Softwa	ro Poquirod					
Item:	re required			Cost per unit	Total Cost	,,,,,,,
December		10. 1		777.44	V-9-V-9	
Proposed Enhancements		Cost		***************************************		
					· · · · · ·	
Total Enhancement Costs			***************************************			

Instructional Formats and Physical Training Requirements

Course Name: Patient Administration Symposium

Course Number: A0416

% of Course Using this Instructional Format	Format	Description	Physical Presence Required?		
100%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.			
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No		
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No		
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?		
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?		
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?		
	Student Verbal Presentations	Students present verbal information to the larger group.	?		
	Student Procedural Presentations	Students present procedural information to the larger group.	?		
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?		
	Shop Activity	Hands-on technical tasks/procedures.	?		
	Lab Activity	Hands-on laboratory tasks/procedures.	?		

**Course Information Summary Sheet** Course Name: Patient Administration Symposium Course Number: A0416 Length of course - number of hours of instruction: 22.25 Number of Registered Students: 54 Number of potential students that could benefit from this course: 150 Instructional goals of the course: To provide nurse clinicians and middle managers, active duty and civilians with current concepts, trends and issues affecting the delivery of care as the military health care system transitions into the new millennium. The course provides participants with knowledge and information that will enable them to effectively participate in the development of appropriate clinical practices. Frequency of Course Offering: Annual **Continuing Education Credit Offered?** Yes Number: 26 For each item listed, check ✓ row marked "Check" if observed or documented. Administrative Requirements Check Self pacing Detailed student records Group training Test Security On-demand availability Multiple test forms Open entry / open exit Training / Instruction Approach Lecture / Text Learning to Mastery Live Presenters (quest speakers) Practice / drill 1 Self study Structured Review Demonstration Feedback on performance Exhibit Remediation Guided Discussion Group activities/collaborative tasks Simulation (roll play, in-basket) Problem solving exercises **Testing Types** Objective knowledge tests Performance test hardware Essay Oral testing Performance test -"paper" No testing/Student course eval Performance test - hardware **Graphics** 2D graphics still 3D animation 3D graphics still 2D interactive animation 2D animation 3D interactive animation Pre recorded video /films Communications Audio Open Discussion Indirect discourse Question and answer opportunities

Assigned reading

**Course Technology Match Table** 

Course Patient Administration Symposium	Technologies					
Administrative Requirements	Check	CBT	WEB	VTT		
Self pacing						-
Group training		1.1	1.3			
On-demand availability					-	
Open entry / open exit						
Detailed student records						
Test Security						
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	1					1
Live Presenters (guest speakers)						1
Self study						<del></del>
Demonstration						<del>                                     </del>
Exhibit						-
Guided Discussion	-		j			
Simulation – knowledge based				ļ		<del> </del>
Simulation - hardware						-
Problem solving exercises						
Learning to Mastery						
Practice / drill	1			-		-
Structured Review				-		-
Feedback on performance			1			
Remediation						
Group activities/collaborative tasks						1
Testing Types		· · · · · · · · · ·		J	I	J
Objective knowledge tests	1		,	T	T	T
Essay						<del> </del>
Performance test –"paper" exercise						İ
Performance test – hardware simulation			-	-		+
Performance test – hardware		· ·				
Oral testing						-
No testing/Student course evaluation	-/					+
Graphics			L			
2D graphics still			1	1		Τ
3D graphics still	<u> </u>					
2D animation						-
3D animation				ļ		
2D interactive animation			-			<del> </del> -
3D interactive animation	-					-
Pre recorded video /films			-			-
Communications		<u></u>			l	1
Audio	T	T	7	1	T	
Indirect discourse						-
Assigned reading						-
Open Discussion						-
Question and answer opportunities	-					-
Question and answer opportunities			- '	I		

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

**Technology Interactivity Factors** 

<b>Course Name:</b> Patient Administration Symposium	Course N	lumber: A	0416			
Asynchronous Course	WEB Based Training					
Interactivity Factors	Level 1	Level 2	Level 3	Level 4		
Administrative Requirements						
Self pacing		>>>>>>	>>>>>>	>>>>>		
Group training				-		
On-demand availability		>>>>>>	>>>>>>	>>>>>		
Open entry / open exit		>>>>>>	>>>>>>	>>>>>		
Detailed student records		>>>>>>	>>>>>>	>>>>>		
Test Security		>>>>>>	>>>>>>	>>>>>		
Multiple test forms	10 N		>>>>>>	>>>>>		
Fraining / Instruction Approach						
Lecture / Text	1	>>>>>>	>>>>>>	>>>>>		
Live Presenters (guest speakers)	i.					
Self study		>>>>>>	>>>>>>	>>>>>		
Demonstration			>>>>>>	>>>>>		
Exhibit			>>>>>>	>>>>>		
Guided Discussion						
Simulation – knowledge based			>>>>>>	>>>>>		
Simulation - hardware	-					
Problem solving exercises	-		>>>>>>	>>>>>		
Learning to Mastery		>>>>>	>>>>>>	>>>>>		
Practice / drill		>>>>>	>>>>>>	>>>>>		
Structured Review				>>>>>		
Feedback on performance			>>>>>	>>>>>		
Remediation			>>>>>>	>>>>>		
Group activities/collaborative tasks						
Testing Types			× :			
Objective knowledge tests	T	>>>>>>	>>>>>>	>>>>>		
Essay						
Performance test –"paper" exercise			>>>>>>	>>>>>		
Performance test – hardware simulation	-					
Performance test – hardware	The state of the s					
Oral testing						
No testing/Student course evaluation		>>>>>>	>>>>>>	>>>>>>		
Graphics						
2D graphics still		>>>>>	>>>>>>	>>>>>>		
3D graphics still	•		>>>>>>	>>>>>>		
2D animation			>>>>>>			
3D animation	_		7777777	>>>>>		
2D interactive animation				>>>>>>		
3D interactive animation				>>>>>>		
Pre recorded video /films						
Communications			>>>>>>	>>>>>		
Audio	T	*******	~~~~~			
Indirect discourse		>>>>>	>>>>>	>>>>>		
Assigned reading		>>>>>	>>>>>>	>>>>>		
Open Discussion						
Question and answer opportunities				-		

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

**Technology Interactivity Factors** 

Course Name: Patient Administration Symposium	Course N	lumber: A	0416			
Asynchronous Course	Computer Based Training					
Interactivity Factors	Level 1	Level 2	Level 3	Level 4		
Administrative Requirements						
Self pacing		>>>>>>	>>>>>>	>>>>>		
Group training						
On-demand availability		>>>>>>	>>>>>>	>>>>>		
Open entry / open exit		>>>>>>	>>>>>>	>>>>>		
Detailed student records						
Test Security						
Multiple test forms			>>>>>>	>>>>>		
Training / Instruction Approach						
Lecture / Text	1	>>>>>>	>>>>>>	>>>>>		
Live Presenters (guest speakers)		NAME OF STREET	4.			
Self study		>>>>>>	>>>>>	>>>>>		
Demonstration	. ,		>>>>>	>>>>>		
Exhibit	100		>>>>>	>>>>>		
Guided Discussion		1.	1.75			
Simulation – knowledge based			>>>>>>	>>>>>		
Simulation - hardware				1		
Problem solving exercises		>>>>>>	>>>>>>	>>>>>		
Learning to Mastery		>>>>>>	>>>>>>	>>>>>		
Practice / drill	1	>>>>>>	>>>>>>	>>>>>		
Structured Review			>>>>>>	>>>>>		
Feedback on performance		>>>>>	>>>>>>	>>>>>		
Remediation			>>>>>>	>>>>>		
Group activities/collaborative tasks						
Testing Types						
Objective knowledge tests		>>>>>	>>>>>>	>>>>>		
Essay						
Performance test –"paper" exercise	•		>>>>>>	>>>>>		
Performance test – hardware simulation		:		>>>>>		
Performance test – hardware						
Oral testing						
No testing/Student course evaluation	<b>J</b>	>>>>>>	>>>>>>	>>>>>		
Graphics	L	I		L		
2D graphics still		>>>>>>	>>>>>	>>>>>		
3D graphics still			>>>>>>	>>>>>		
2D animation			>>>>>	>>>>>		
3D animation	7	V 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		>>>>>		
2D interactive animation				>>>>>		
3D interactive animation						
Pre recorded video /films			>>>>>>	>>>>>		
Communications			1			
Audio		>>>>>>	>>>>>>	>>>>>		
Indirect discourse						
Assigned reading		>>>>>	>>>>>>	>>>>>>		
Open Discussion						
- Pari 2 1000001011						

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

### **Short Worksheet: Development Time**

Short Worksheet: Refined Estimate of Dev Course Name: Patient Administration Sympo		Hours P	er Hour of Instructi	on	
	Media: We	eb Based	Level: 2		
	Analysis	Design	Development	Implementation	Sums
1 Percentage of Time Spent by Task Type by Level	0.40	0.20	0.25	0.15	
2 Multiply line 1 by average * hours			30 :		
200			Entra Liverinia.	A STATE OF THE STA	
3 Average hrs. per phase	80.00	40.00	50.00	30.00	ş./
4 Adjustments ** for hours per phase. Use 1 for added time and for less time	0.30	0.50	0.80	0.30	
5 Adjusted hrs. per phase. Multiply line 3 by line 4	24.00	20.00	40.00	9.00	
Total Labor Hours - sum across line 5		100		200	93.0

<sup>\*</sup> Average hours per hour of instruction

\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

## **Short Worksheet: Development Time**

		Media: CE	3T Multim	edia	Level: 2	
		Analysis	Design	Development	Implementation	Sums
1	Percentage of Time Spent by Task Type by Level	0.40	0.20	0.25	0.15	
2	Multiply line 1 by average * hours	ċ	2 3		25.4 m 2 m 2 m 2 m 2 m 2 m 2 m 2 m 2 m 2 m	
	200					
3	Average hrs. per phase	80.00	40.00	50.00	30.00	+ 1
4	Adjustments ** for hours per phase. Use 1 for added time and for less time	0.30	0.50	0.80	0.30	
5	Adjusted hrs. per phase. Multiply line 3 by line 4	24.00	20.00	40.00	9.00	erniki Viniki
	Total Labor Hours - sum across line 5			en de la companya de	And the second s	93.

<sup>\*</sup> Average hours per hour of instruction

<sup>\*\*</sup> Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

### **Course Cost Estimation Worksheet**

8. 3 - y - 7	Course Cost Estimation Worksheet: Web Based Training	and the same	
Cou	rse Name: Patient Administration Symposium Course Number: A0416		
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	\$	\$50.00
3	Multiple line 1 by line 2 and put the results on line 3.	\$	\$4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	23
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	16.1
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	\$	\$74,865.00
2	Do not use lines 7 to 12 for any costs that are to be shared.	2.5	
7	Infrastructure Costs	<b> \$</b>	
8	Recurring Costs	\$	
9	Delivery Labor Costs	\$	
10	Travel Costs	\$	
11	Miscellaneous Costs	\$	
12	Add line 7 to 12	\$	\$0.00
13	Total Cost - Add lines 6 and 12.	\$	\$74,865.00
14	Number of potential students.	\$	150
15	Average Cost Per Student Divide line 13 by line 14	\$	\$499.10
		1	

### **Course Cost Estimation Worksheet**

m.	Course Cost Estimation Worksheet: Computer Based Training		
Со	urse Name: Patient Administration Symposium  Course Number: Patient Administration Symposium		
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	\$	\$50.00
3	Multiple line 1 by line 2 and put the results on line 3.	\$	\$4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	23
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	16.1
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	\$	\$74,865.00
10 JA	Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	\$	
8	Recurring Costs	\$	
9	Delivery Labor Costs	\$	
10	Travel Costs	\$	
11	Miscellaneous Costs	\$	****
12	Add line 7 to 12	\$	\$0.00
13	Total Cost - Add lines 6 and 12.	\$	\$74,865.00
14	Number of potential students.	\$	150
15	Average Cost Per Student Divide line 13 by line 14	\$	\$499.10
1,500			

# Cost Estimate for a Single Course Over a Five Year Period

Course Name: Patient Administra	osium	Course N	umber: A04	416	
Technology Selected	Level 1	Level 2	Level 3	Level 4	
WBT		X			
CBT					
VTT	Low		High		
Other					10° Mais
Cost Factors		Values		Source	
Labor Hours Year 1		2,069			chnology Match Table, y Interactivity Factors Table
2. Labor Hours Year 2		2,069		1	,
3. Labor Hours Year 3		2,069		1	
4. Labor Hours Year 4		2,069		1	
5. Labor Hours Year 5		2,069		-	
6. Subtotal	7	10,346	<u> </u>		Table 1
7. Average Labor Cost per hour		\$50	100 .31.69		
8. Total labor cost over a 5 year p Multiply line 7 by line 6.	eriod.	\$517,313			
Additional Development Costs	By Year				
9. Cost year 1		\$0		Data to Su	pport Cost Analysis Worksheet
10. Cost year 2		\$0	-		
11. Cost year 3		\$0			
12. Cost year 4		\$0			
13. Cost year 5		\$0			
<ol> <li>Total additional costs. Sum li and enter on line 14</li> </ol>	nes 9 to 13	\$0			
<ol> <li>Total Course Cost. Add lines and enter on line 15.</li> </ol>	8 and 14	\$517,313			
16. Average cost over 5 years. Divide line 15 by 5 and enter on line 16.		\$103,463			
17. Potential students year 1.		150		From Cour	rse Information Summary Sheet
18. Total potential students year (multiply line 17 by 5 and enter on		750			
<u> </u>		\$690		Round up	to the nearest whole dollar.

# Health Facility Life Cycle Acquisition Conversion Analysis

#### JOINT HEALTH FACILITY LIFE CYCLE ACQUISITION

#### Course Purpose:

To provide a Tri-Service interactive forum where individuals involved in Facilities Management can inform each other of processes and changes in the professional environment, improve current operations by defining and refining all aspects of our facility life cycle management functions, and play a determining role in the future by establishing a truly collaborative Tri-service work environment.

#### Course Content Stability:

#### Low to Moderate

While some items are static, the information changes concerning new processes and methods. Reported rates of change varied from 10% to 85% depending on which of seven tracks a student was assigned.

#### General Presentation Style: Interactive/Collaborative

The course was primarily small group discussion and problem solving exercises. Approximately 25% of information was delivered to the group in a lecture format.

#### Instructional Aids:

The majority of the speakers used Power Point slides or a 35mm slide projector to support their presentations. Flip Charts were used throughout to present small group findings to the larger audience.

#### Hands-on Activities:

#### Degree of Instructional Interaction:

The format of this course emphasized student interaction, so that participants provided the majority of the instruction and reinforcement to each other.

#### Relevant Instructional Value: High

This course provided a unique environment for instruction. Student interaction took place in a highly structured format, with each student participating in a particular curriculum based on personal requests.

#### Recommendation:

#### Partial Conversion: Convert Newcomers' Orientation to Web Based Training

The heavy emphasis on student interaction and problem solving exercises in this course makes it, as a whole, a poor candidate for a distance learning medium. However one portion of the course seems appropriate for Web Based Training. The Newcomers' Orientation is a distinct and separate section designed to provide an overview of each phase of the health facilities life cycle process. It is divided into several blocks of instruction that focus on each phase of the process. Its' primary purpose is to provide an understanding of the overall process. Students are pre-selected to attend the Newcomers' Orientation. Each is a newcomer to the Health Facility Planning Process, or a person who may have some experience but has not attended the course. By placing this course on the Web new personnel assigned to Health Facility Planning, regardless of service, will be able to take the course immediately, rather than having to wait for the next conference. While the cost of the course is relatively high, the benefits to the service may outweigh the cost of conversion.

#### **DISTANCE LEARNING CONVERSION REPORT FORM**

Course Name: Health Facility Life (						A0421			
Acquisition: Newcomers' Orientation	таск								
1. Instructional goals of the co	ureo: To	orovido r	oortioir	onto u	vith on	over invest			<b>4</b> 1
medical facility life cycle process.	uise. 10 p	provide t	Jarucip	oants v	viiii an	overview or	each ph	ase or	tne
Thedical Identity life by die process.				****					
2. Frequency of course offering	per vear:	# 1						Yes	No
B. Current length of course in hours		# 20	7	Coi	nvert	to DL?		X	110
4. Number of hours to be conver		# 20	8		nance				X
5. Number of registered students		# 30			1011100	•			\ \ \ \
6. Number of potential students									-
could benefit from the course		# 50							
		1							<u> </u>
9. If item 8 = Yes, Specify									
Technology	Level	1 Lev	el 2	Leve	el 3	Level 4			
WBT			X						
CBT									
VTT	Low			High	1	I			
Other				13.	-				
				J			L		
Labor Hours Estimation Metho	d: Short	X Lo	na	Sync	hron	ous			
			<u></u>						
	. 18	Cost D	ata						
10. Total Cost Year One					\$ 65	,100	T		
11. Total Cost Year Two			• • • • • • • • • • • • • • • • • • • •			,550			
12. Total Cost Year Three					\$ 32,550				
13. Total Cost Year Four					\$ 32.550				
!4. Total Cost Year Five						,550			
15. Total costs year 1 to 5 (Su	m of lines	s 10 thi	rough	14)		5,300			
					,				
16. Average cost, years 1 to 5 (c	livide valu	e in line	15 b	y 5)	\$ 39	,060			
17. Total potential students over				· /	,				
(multiply the number of pote				bove)					
by 5.)		,		,	# 2	50			
18. Average cost per potential	student d	over 5	/ear						
period.									
(divide the value in line 15 by	the value	e in line	17)		\$ 78	2			
	ional Har	dware/S	Softw	are R			· · · · · · · · · · · · · · · · · · ·		
Item:					Cos	t per unit	Total	Cost	
		a							
Proposed Enhancement(s)	Cost								
	\$					, , , , , , , , , , , , , , , , , , , ,			
	\$								
	\$ \$							-	
Total Enhancement Costs				78-78-78-78-78-78-78-78-78-78-78-78-78-7					
Total Enhancement Costs	\$								

**Instructional Formats and Physical Training Requirements** 

Course Name: Health Facility Life Cycle Acquisition Newcomers' Orientation Track

Course Number: A0421

6 of Course Ising this Istructional Format	Format	Description	Physical Presence Required?
70%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
·	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
2.5%	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
5%	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
10%	Student Verbal Presentations	Students present verbal information to the larger group.	?
25(444)	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
12.5%	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

**Note:** Demonstration and Shop Activities are paper or computer based and can be simulated or performed through Web Based Training

# **Course Information Summary Sheet**

Course Name: Health Facility Life Cycle	Acquisition:	Newcomers' Orientation Track	
Course Number: A0421			
Length of course - number of hours	of instruct	ion: 20	
Number of Registered Students: 30			
Number of potential students that co	uld henefit	from this course: 50	
Instructional goals of the course: To medical facility life cycle process.	provide pa	irticipants with an overview of each pha	se of the
Frequency of Course Offering: Once	e a year		
Continuing Education Credit Offered	? No	Number: N/A	
For each item listed, check ✓ rov	v marked	"Check" if observed or documen	tad
Administrative Requirements	Check	onesk in observed of document	Check
Self pacing	Oncor	Detailed student records	Officer
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit	<del></del>	Watapio toot forme	
Training / Instruction Approach			1 .
Lecture / Text	X	Learning to Mastery	1
Live Presenters (guest speakers)	<del>                                     </del>	Practice / drill	X
Self study		Structured Review	
Demonstration	X	Feedback on performance	
Exhibit	<del>                                     </del>	Remediation	
Guided Discussion	+	Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises	X		
Testing Types			
Objective knowledge tests	T	Performance test hardware	-
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval	Х
Performance test – hardware			
Graphics			
2D graphics still	X	3D animation	Т
3D graphics still			
2D animation		2D interactive animation	
2D animation		3D interactive animation  Pre recorded video /films	V
Communications		Fre recorded video /films	<u> </u>
Audio		Open Discussion	1
Indirect discourse		Open Discussion  Question and answer opportunities	-
Assigned reading		Question and answer opportunities	
Assigned reading			

4. Course Technology Match Table

(Name) Health Facility Life Cycle Acquisition	Technologies					
Newcomers' Orientation Track						
Administrative Requirements	Check	CBT	WBT	VTT		
Self pacing						
Group training						
On-demand availability						
Open entry / open exit						
Detailed student records						
Test Security						
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	Х					-
Live Presenters (guest speakers)						
Self study						
Demonstration	Х					
Exhibit		-				+
Guided Discussion			·		1	1
Simulation – knowledge based						1
Simulation - hardware						
Problem solving exercises	X					-
Learning to Mastery	<del>                                     </del>					
Practice / drill	X					
Structured Review						
Feedback on performance						+
Remediation						<del> </del>
Group activities/collaborative tasks				_		<del> </del>
Testing Types	<u> </u>					
Objective knowledge tests		T			1	
Essay			,			+
Performance test –"paper" exercise			1			-
Performance test – hardware simulation			-	_		
Performance test – hardware	1		1. 1. 1. 1.			
Oral testing	1					-
No testing/Student course evaluation	X			1		+
Graphics						
2D graphics still	X	1	1		T	T
3D graphics still	<del>                                     </del>		+			+
2D animation	-		+			+
3D animation	-					
2D interactive animation			-			-
3D interactive animation			<del>                                     </del>			+
Pre recorded video /films	X		<del>-</del>			+
Communications		<u> </u>			1	_1
Audio	7		T		T	
Indirect discourse						-
Assigned reading	+				-	
Open Discussion					<del> </del>	-
Question and answer opportunities						

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

**Technology Interactivity Factors** 

Acquisition: Newcomers' Orientation Track						
Asynchronous Course	WEB Based Training					
Interactivity Factors	Level 1	Level 2	Level 3	Level 4		
Administrative Requirements		7				
Self pacing		>>>>>>	>>>>>>	>>>>>		
Group training						
On-demand availability		>>>>>>	>>>>>>	>>>>>		
Open entry / open exit		>>>>>>	>>>>>>	>>>>>		
Detailed student records		>>>>>>	>>>>>>	>>>>>		
Test Security		>>>>>	>>>>>>	>>>>>		
Multiple test forms			>>>>>>	>>>>>		
Training / Instruction Approach				1		
Lecture / Text	Х	>>>>>>	>>>>>>	>>>>>		
Live Presenters (guest speakers)				,		
Self study		>>>>>>	>>>>>	>>>>>		
Demonstration		Х	>>>>>>	>>>>>		
Exhibit			>>>>>>	>>>>>		
Guided Discussion	1, 1					
Simulation – knowledge based			>>>>>>	>>>>>		
Simulation - hardware						
Problem solving exercises		Х	>>>>>	>>>>>		
Learning to Mastery		^ >>>>>>	>>>>>>	>>>>>		
Practice / drill		>>>>>>	>>>>>	>>>>>		
Structured Review				>>>>>		
Feedback on performance			>>>>>	>>>>>		
Remediation			>>>>>	>>>>>		
Group activities/collaborative tasks						
Testing Types						
Objective knowledge tests	l	>>>>>>	>>>>>			
Essay				>>>>>		
Performance test "paper" exercise			>>>>>>	*****		
Performance test – hardware simulation			7777777	>>>>>		
Performance test – hardware						
Oral testing						
No testing/Student course evaluation		*****	****			
Graphics	L	>>>>>	>>>>>	>>>>>		
2D graphics still		>>>>>>	******			
3D graphics still	Х	7777777	>>>>>>	>>>>>		
2D animation			>>>>>>	>>>>>		
3D animation	Park I		>>>>>	>>>>>		
2D interactive animation				>>>>>		
3D interactive animation				>>>>>		
Pre recorded video /films		V				
Communications		X	>>>>>	>>>>>		
Audio						
Indirect discourse		>>>>>	>>>>>	>>>>>		
Assigned reading		>>>>>>	>>>>>	>>>>>		
Open Discussion						
Question and answer opportunities						

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

**Technology Interactivity Factors** 

Course Name: Health Facility Life Cycle Acquisition: Newcomers' Orientation Track						
Asynchronous Course	Cor	Computer Based Training				
Interactivity Factors	Level 1	Level 2	Level 3	Level		
Administrative Requirements						
Self pacing		>>>>>>	>>>>>>	>>>>>		
Group training						
On-demand availability		>>>>>>	>>>>>>	>>>>>		
Open entry / open exit	<u> </u>	>>>>>>	>>>>>>	>>>>>		
Detailed student records						
Test Security						
Multiple test forms			>>>>>>	>>>>>		
Fraining / Instruction Approach						
Lecture / Text	X	>>>>>>	>>>>>>	>>>>>		
Live Presenters (guest speakers)						
Self study		>>>>>>	>>>>>>	>>>>>		
Demonstration		Х	>>>>>>	>>>>>		
Exhibit			>>>>>>	>>>>>		
Guided Discussion						
Simulation – knowledge based			>>>>>>	>>>>>		
Simulation - hardware						
Problem solving exercises	Х	>>>>>>	>>>>>>	>>>>>		
Learning to Mastery		>>>>>>	>>>>>>	>>>>>		
Practice / drill	X	>>>>>>	>>>>>>	>>>>>		
Structured Review			>>>>>>	>>>>>		
Feedback on performance		>>>>>>	>>>>>>	>>>>>		
Remediation			>>>>>>	>>>>>		
Group activities/collaborative tasks						
Testing Types						
Objective knowledge tests		>>>>>>	>>>>>>	>>>>>		
Essay						
Performance test - "paper" exercise			>>>>>>	>>>>>		
Performance test – hardware simulation				>>>>>		
Performance test – hardware				L		
Oral testing						
No testing/Student course evaluation	Х	>>>>>>	>>>>>>	>>>>>		
Graphics		<del></del>	1	L		
2D graphics still	Х	>>>>>	>>>>>	>>>>>		
3D graphics still			>>>>>	>>>>>		
2D animation			>>>>>>	>>>>>		
3D animation				>>>>>		
2D interactive animation				>>>>>		
3D interactive animation						
Pre recorded video /films		Х	>>>>>>	>>>>>		
Communications				L		
Audio		>>>>>>	>>>>>>	>>>>>		
Indirect discourse						
Assigned reading		>>>>>>	>>>>>>	>>>>>		
Open Discussion			1			
Question and answer opportunities						

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

**Short Worksheet: Development Time** 

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction Course Name: Health Facility Life Cycle Acquisition: Newcomers' Orientation Track Media: Web Based Training Level: 2 Analysis Design Development Implementation Sums Percentage of Time 1 Spent by Task Type .40 .20 .25 .15 by Level Multiply line 1 by average \* hours 200 Average hrs. per phase. Multiply line 1 80 40 50 30 G<sub>P</sub>Net by line 2 Adjustments \*\* for hours per phase Use 1.\_ for added .3 .5 .8 .3 time and .\_ for less time Adjusted hrs. per phase. Multiply line 3 24 20 9 40 by line 4 Total Labor Hours -93 sum across line 5

<sup>\*</sup> Average hours per hour of instruction

<sup>\*\*</sup> Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

**Short Worksheet: Development Time** 

	ort Worksheet: Refined			ent Hours Per H	our of Instruction					
Co	Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction Course Name: Health Facility Life Cycle Acquisition: Newcomers' Orientation Track									
Media: Computer Based Training Level										
		Analysis	Design	Development	Implementation	Sums				
1	Percentage of Time Spent by Task Type by Level	.40	.20	.25	.15					
2	Multiply line 1 by average * hours200		347 			10 10 10 10 10 10 10 10 10 10 10 10 10 1				
3	Average hrs. per phase	80	40	50	30					
4	Adjustments ** for hours per phase Use 1 for added time and for less time	.3	.5	.8	.3					
5	Adjusted hrs. per phase. Multiply line 3 by line 4	24	20	40	9					
	Total Labor Hours - sum across line 5			T PROPERTY OF THE PROPERTY OF		93				

<sup>\*</sup> Average hours per hour of instruction

\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

# **Course Cost Estimation Worksheet**

	Course Cost Estimate Worksheet: Web Based Training							
	Course Name: Health Facility Life Cycle Acquisition: Newcomers' Orientation Track  Course Number: A0421							
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs. 93						
2	Average hourly labor cost in dollars	\$ 50						
3	Multiple line 1 by line 2 and put the results on line 3.	\$ 4650						
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs. 20						
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous deliver skip line 5	S Hrs. 14						
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery <b>OR</b> line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	\$ 65,100						
	Do not use lines 7 to 12 for any costs that are to be shared.							
7	Infrastructure Costs	\$						
8	Recurring Costs	\$						
9	Delivery Labor Costs	\$						
10	Travel Costs	\$						
11	Miscellaneous Costs	\$						
12	Add line 7 to 12	\$						
13	Total Cost - Add lines 6 and 12.	\$ 65,100						
14	Number of potential students	# 50						
15	Average Cost Per Student Divide line 13 by line 14	\$ 1,302						

# **Course Cost Estimation Worksheet**

	Course Cost Estimation Worksheet  Course Cost Estimate Worksheet: Computer Based Training						
	Course Name: Health Facility Life Cycle Acquisition: Newcomers' Orientation Track  Course Number: A0421						
1	Write the sum from Refined Estimated number of hrs. per hr. o	•	Hrs. 93				
2	Average hourly labor cost in dollar	S	\$ 50				
3	Multiple line 1 by line 2 and put the	e results on line 3.	\$ 4650				
4	Actual number of classroom equivoconverted or developed.		Hrs. 20				
5	Compression: If conversion to asy multiply line 4 by .7 (seven tenths) on line 5. If not a conversion to asy skip line 5	Hrs. 14					
6	Multiply line 3 by line 5 if a conver asynchronous delivery <b>OR</b> line 3 b conversion to asynchronous deliver on line 6.	\$ 65,100					
	Do not use lines 7 to 12 for any costs that are to be shared.						
7	Infrastructure Costs		\$				
8	Recurring Costs		\$				
9	Delivery Labor Costs		\$				
10	Travel Costs		\$				
11	Miscellaneous Costs		\$				
12	Add line 7 to 12		\$				
13	Total Cost - Add lines 6 and 12.		\$ 65,100				
14	Number of potential students		# 50				
15	Average Cost Per Student Divide	line 13 by line 14	\$ 1,302				
		: •	gradient gebruik				

Separate worksheets are needed for each technology. Follow the instructions given on the worksheet.

Cost Estimate for a Single Course Over a Five Year Period

Cost Estimate for a Single Col Course Name: Health Facility Lif Acquisition: Newcomers' Orientatio	;		ourse Num	ber: A0421		
Technology Selected	Technology Selected Leve		Level 2	Level 3	Level 4	
WBT			X			
CBT						
VTT	Low			High		
Other						
			L			
Cost Factors			Values		So	urce
1. Labor hours year 1		13	02			
2. Labor hours year 2			51	Course 7	Technology N	/latch Table
3. Labor hours year 3			51			rity Factors Table
4. Labor hours year 4			51			
5. Labor hours year 5			51			
6. Subtotal		39				
7. Average labor cost		\$ 5				
8. Total labor Cost over 5 yr. pe	eriod.	\$ 195,300				
Multiply line 6 by line 7						
Additional Development/ Deliv	ery C	ost	By Year			
9. Cost year 1		\$	-0-	Data to S	Support Cost	Analysis Worksheet
10. Cost year 2		\$ -0-				
11. Cost year 3		\$	-0-			- 1900 ·
12. Cost year 4		\$ -0-				
13. Cost year 5		\$	-0-			
14. Total Additional Costs .						
Sum lines 9 to 13 and enter line 14	on	\$ -0-				
15. Total Course Cost. Add lines 8 and 14 and enter line 15	on	\$ 1	195,300			
16. Average cost over 5 years. Divide line 15 by 5 and enter on line 16.		\$ 39,060				
17. Potential students year 1		50	)	From Co	urse Informa	tion Summary Sheet
18. Total potential students year 5 (multiply line 17 by 5. and enter on line 18)		25	0			
<ol> <li>Average cost per student yr</li> <li>(divide line 15 by line 18 enter on line 19)</li> </ol>		\$ 7	782	Round u	o to the near	est whole dollar

# AMEDD Worldwide Personnel Management Course Conversion Analysis

#### 1998 AMEDD Worldwide Personnel Mgmt. Course

#### Course Purpose:

To provide current information regarding personnel policies and instruction in fundamental personnel management technical skills, as well as to accentuate peacetime responsibilities of the unit human resource manager.

#### Course Content Stability

Course content constantly changes to reflect automation and innovation changes in the work environment.

#### General Presentation Style: Lecture

This course could best be described as a "conference". That is, the information was delivered using a lecture format as the primary vehicle in which one instructor presented information to many learners. There were two panel discussions and three seminars as part of the breakout sessions.

#### Instituctional Ales

Overheads and PowerPoint slides.

#### Hamaston Activities, sand

None

#### Degree of Instructional Interaction:

Question/Answer periods accompanied the lectures and panel discussion. Informational exchanges took place during the seminar.

#### Relevant Instructional Value: Moderate

This course provides a significant amount of information, but with a goal of making the listeners familiar with the topic. Should the students wish to apply any of the information that was provided, it is doubtful that this could be accomplished without doing some follow-up work.

#### Recommendation

#### Convert to Web Based Training

This course is an informational exchange that could effectively be delivered by any distance learning format that supported "one-to-many" communications and allowed for visual aides. The most cost effective mode, and the one recommended is Level 1 Web Based Training. This requires eliminating the panel discussions and the three seminars from conversion. These sessions, which made up less than 9% of the sessions, were neither mandatory nor attended by all participants.

While the students had the opportunity to ask questions after most presentations, the questions. overall, focused on clarification. This type of interaction can be easily handled through Web, or Computer Based Training.

Given the large numbers of presenters and the number of contact hours involved (54), VTT proved to be significantly less cost effective (\$518 per student) as compared to Web Based Training ((\$298 per student).

# **DISTANCE LEARNING CONVERSION REPORT FORM**

DIGITATION CONTRA									
Course Name: AMEDD Worldwide Po	ersonnel			e Num	ber:				
Mgmt. Course		A	0423	-	377-1111	****			
1. Instructional goals of the cou	Irse: Prov	ide curre	nt inf	ormati	on rec	arding perso	annel no	licios a	nd
Instruction in fundamental personnel n									
responsibilities of the unit Human Rese	ource Man	agers.	001 01	uno, ac		ao aooontaa	ie ine pe	aoctim	•
2. Frequency of course offering p	er year:	biannu	ıal					Yes	No
3. Current length of course in hou	rs	# 62		7. (	Conve	ert to DL?		Х	
4. Number of hours to be converted	ed	# 54		8. E	Enhar	nce?			Х
5. Number of registered students		# 300							
6. Number of potential students th	at								
could benefit from the course		# 300							
9. If item 8 = Yes, Specify				,					
Technology	Level 1	Leve	1 2	Leve	el 3	Level 4			
WBT	X								
СВТ									
VTT	Low			High		·		VT-100-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	
Other									
<b>Labor Hours Estimation Method</b>	: Short _	X_ Lon	<u></u>	Sync	hron	ous			
10. Tatal Coat Vaca One		Cost Da	ta	-	Φ 00	000	r		
10. Total Cost Year One						,300			
<ul><li>11. Total Cost Year Two</li><li>12. Total Cost Year Three</li></ul>					\$ 89,300				
13. Total Cost Year Four					\$ 89,300 \$ 89,300				
!4. Total Cost Year Five						,300			
15. Total costs year 1 to 5 (Sun	of lines	10 thre	nuah	11		6,500			
10. Total costs year 1 to 5 (Sun	i oi iiies	TO UTIC	Jugii	14)	φ <del>44</del>	0,000			
16. Average cost, years 1 to 5 (div	ide value	in line	15 h	75)	\$ 80	,300			
17. Total potential students over a	five veal	nerind	10 0	y J)	Ψ 03	,500			
(multiply the number of potent				oove)					
by 5.)	iidi otaasi	(11.011)	. o a,	33.0,	# 1,5	500			
18. Average cost per potential s	tudent o	ver 5 ve	ear		,				
period.		•							
(divide the value in line 15 by	the value	in line 1	17)		\$ 29	8			
				-					
	nal Hard	lware/S	oftw	are R	equir	ed	-		
Item:					Cos	t per unit	Total	Cost	
Proposed Enhancement(s)	Cost								
	\$								
	\$								
	\$					1997 6 2022	-		
Total Enhancement Costs									
en e							, .		

**Instructional Formats and Physical Training Requirements** 

ourse Na MEDD Wo	<b>me:</b> orldwide Personnel	Mgmt. Course Number: A0423					
of Course ing this tructional rmat	Format	Description.	Physical Presence Required?				
92%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No				
4%	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.					
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.					
5%	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.					
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?				
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.					
	Student Verbal Presentations	Students present verbal information to the larger group.	?				
	Student Procedural Presentations	Students present procedural information to the larger group.	?				
» «	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?				
	Shop Activity	Hands-on technical tasks/procedures.					
	Lab Activity	Hands-on laboratory tasks/procedures.	?				

**Note:** The following instructional approaches will not be used for determining the Distance Learning Technology, Level of Interactivity, or Cost.

- Panel Discussions made up less than 4% of the course and were not mandatory.
- Seminars (small group discussions) made up less than 5% of the course and were not mandatory.

## **Course Information Summary Sheet**

Course Name: AMEDD Worldwide Personnel Mgmt. Course Course Number: A0423 Length of course - number of hours of instruction: 62 Number of Registered Students: 300 Number of potential students that could benefit from this course: 300 Instructional goals of the course: Provide current information regarding personnel policies and Instruction in fundamental personnel management technical skills, as well as accentuate the peacetime responsibilities of the unit Human Resource Managers. Frequency of Course Offering: Biannual Continuing Education Credit Offered? No Number: N/A For each item listed, check ✓ row marked "Check" if observed or documented. **Administrative Requirements** Check Check Self pacing Detailed student records Group training Test Security On-demand availability Multiple test forms Open entry / open exit **Training / Instruction Approach** Lecture / Text Χ Learning to Mastery Live Presenters (quest speakers) Practice / drill Self study Structured Review Demonstration Feedback on performance Exhibit Remediation Guided Discussion Group activities/collaborative tasks Simulation (roll play, in-basket) Problem solving exercises **Testing Types** Objective knowledge tests Performance test hardware Essav Oral testing Performance test - "paper" No testing/Student course eval. Χ Performance test - hardware **Graphics** 2D graphics still X 3D animation 3D graphics still 2D interactive animation 2D animation 3D interactive animation Pre recorded video /films Communications Audio Open Discussion Indirect discourse Question and answer Assigned reading

4. Course Technology Match Table

Course (Name) AMEDD Worldwide Personnel Mgmt. Course			Technologies				
Administrative Requirements	Check	CBT	WBT	VTT	<del></del>		
Self pacing			11.51	V 1 1			
Group training							
On-demand availability	<del> </del>						
Open entry / open exit		-					
Detailed student records				-			
Test Security							
Multiple test forms			-	<del> </del>			
Training / Instruction Approach				-			
Lecture / Text	X			-			
Live Presenters (guest speakers)	<del>  ^</del> _						
Self study	<del>-</del>		<u></u>				
Demonstration	<del>                                     </del>						
Exhibit	+		<del> </del>	-			
Guided Discussion							
Simulation – knowledge based	+			-			
Simulation - hardware							
Problem solving exercises	<del> </del>						
Learning to Mastery			<del> </del>				
Practice / drill	-		<del></del>				
Structured Review	-						
Feedback on performance	+						
Remediation	+		-				
Group activities/collaborative tasks							
Testing Types							
Objective knowledge tests		·	T				
Essay							
Performance test - "paper" exercise							
Performance test - hardware simulation							
Performance test – hardware							
Oral testing							
No testing/Student course evaluation	Х						
Graphics							
2D graphics still	Х						
3D graphics still	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \						
2D animation							
3D animation			-	+			
2D interactive animation		~					
3D interactive animation							
Pre recorded video /films	<del></del>						
ommunications							
Audio							
Indirect discourse							
Assigned reading	-						
Open Discussion							
Question and answer opportunities							

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Course Name: AMEDD Worldwide Personnel Mgmt. Course	Course Number: A0423					
Asynchronous Course	WEB Based Training					
Interactivity Factors	Level 1	Level 2	Level 3	Level 4		
Administrative Requirements						
Self pacing	-	>>>>>>	>>>>>>	>>>>>		
Group training			***			
On-demand availability		>>>>>>	>>>>>>	>>>>>		
Open entry / open exit		>>>>>>	>>>>>>	>>>>>		
Detailed student records		>>>>>>	>>>>>>	>>>>>		
Test Security		>>>>>>	>>>>>>	>>>>>		
Multiple test forms			>>>>>>	>>>>>		
Training / Instruction Approach						
Lecture / Text	X	>>>>>>	>>>>>>	>>>>>		
Live Presenters (guest speakers)		ž.,				
Self study		>>>>>>	>>>>>>	>>>>>		
Demonstration			>>>>>>	>>>>>		
Exhibit			>>>>>	>>>>>		
Guided Discussion						
Simulation – knowledge based			>>>>>>	>>>>>		
Simulation - hardware	_					
Problem solving exercises			>>>>>	>>>>>		
Learning to Mastery		>>>>>>	>>>>>>	>>>>>		
Practice / drill		>>>>>>	>>>>>>	>>>>>		
Structured Review				>>>>>		
Feedback on performance			>>>>>	>>>>>		
Remediation	-		>>>>>	>>>>>		
Group activities/collaborative tasks						
Testing Types						
Objective knowledge tests		>>>>>	>>>>>	>>>>>		
Essay						
Performance test –"paper" exercise			>>>>>>	>>>>>		
Performance test – hardware simulation						
Performance test – hardware						
Oral testing						
No testing/Student course evaluation	Х	>>>>>>	>>>>>>	>>>>>		
Graphics	1 ^		1			
2D graphics still	Х	>>>>>>	>>>>>	>>>>>		
3D graphics still	^		>>>>>	>>>>>>		
2D animation			>>>>>>	>>>>>		
3D animation				>>>>>>		
2D interactive animation				>>>>>		
3D interactive animation				~~~~~		
Pre recorded video /films			>>>>>	>>>>>		
Communications						
Audio		>>>>>>	>>>>>	>>>>>		
Indirect discourse						
Assigned reading		>>>>>	>>>>>>	>>>>>		
Open Discussion						
Question and answer opportunities						

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Course Name: AMEDD Worldwide Personnel Mgmt. Course	Course Number: A0423				
Asynchronous Course	Computer Based Traini				
Interactivity Factors	Level 1	Level 2	Level 3	Level 4	
Administrative Requirements					
Self pacing		>>>>>>	>>>>>>	>>>>>	
Group training					
On-demand availability		>>>>>>	>>>>>>	>>>>>	
Open entry / open exit		>>>>>>	>>>>>>	>>>>>	
Detailed student records					
Test Security	-				
Multiple test forms			>>>>>>	>>>>>	
Training / Instruction Approach					
Lecture / Text	Х	>>>>>>	>>>>>>	>>>>>	
Live Presenters (guest speakers)					
Self study		>>>>>	>>>>>>	>>>>>	
Demonstration			>>>>>>	>>>>>	
Exhibit			>>>>>>	>>>>>	
Guided Discussion	_				
Simulation – knowledge based			>>>>>>	>>>>>	
Simulation - hardware				1	
Problem solving exercises		>>>>>>	>>>>>>	>>>>>	
Learning to Mastery		>>>>>>	>>>>>>	>>>>>	
Practice / drill		>>>>>>	>>>>>>	>>>>>	
Structured Review			>>>>>>	>>>>>	
Feedback on performance		>>>>>>	>>>>>>	>>>>>	
Remediation			>>>>>>	>>>>>	
Group activities/collaborative tasks					
Testing Types					
Objective knowledge tests		>>>>>>	>>>>>>	>>>>>	
Essay					
Performance test - "paper" exercise			>>>>>>	>>>>>	
Performance test – hardware simulation				>>>>>	
Performance test – hardware					
Oral testing					
No testing/Student course evaluation	Х	>>>>>>	>>>>>>	>>>>>	
Graphics			J		
2D graphics still	Х	>>>>>>	>>>>>>	>>>>>	
3D graphics still			>>>>>>	>>>>>	
2D animation			>>>>>>	>>>>>	
3D animation				>>>>>	
2D interactive animation				>>>>>	
3D interactive animation					
Pre recorded video /films			>>>>>	>>>>>	
Communications			I		
Audio		>>>>>	>>>>>	>>>>>	
Indirect discourse				1	
		>>>>>>	>>>>>>	>>>>>>	
		1			

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Course Name: AMEDD Worldwide Personnel Mgmt. Course	Course Number: A0423				
Synchronous Course	Video Teletraining				
Interactivity Factors	Level 1 Low				
interactivity Factors	Level I Low	Level 2 High			
Administrative Requirements					
Self pacing					
Group training		>>>>>			
On-demand availability					
Open entry / open exit					
Detailed student records					
Test Security		>>>>>			
Multiple test forms		>>>>>			
Training / Instruction Approach					
Lecture / Text	X	>>>>>			
Live Presenters (guest speakers)		>>>>>			
Self study					
Demonstration		>>>>>>			
Exhibit		>>>>>			
Guided Discussion					
Simulation – knowledge based		>>>>>>			
Simulation - hardware					
Problem solving exercises					
Learning to Mastery					
Practice / drill					
Structured Review					
Feedback on performance					
Remediation					
Group activities/collaborative tasks					
Testing Types					
Objective knowledge tests					
Essay					
Performance test –"paper" exercise	- 4-4 				
Performance test – hardware simulation					
Performance test – hardware					
Oral testing					
No testing/Student course evaluation	Х	>>>>>			
Graphics					
2D graphics still	X	>>>>>			
3D graphics still		>>>>>			
2D animation		>>>>>			
3D animation		>>>>>>			
2D interactive animation					
3D interactive animation					
Pre recorded video /films		>>>>>>			
Communications					
Audio		>>>>>			
Indirect discourse					
Assigned reading		>>>>>>			
Open Discussion		V			
Question and answer opportunities					

Shaded blocks indicates factors NOT supported by that level of technology Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

**Short Worksheet: Development Time** 

Sh	Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction							
Course Name: AMEDD Worldwide Personnel Mgmt. Course Media: Web Based Training Level: 1								
		Analysis	Design	Development	Implementation	Sums		
1	Percentage of Time Spent by Task Type by Level	.40	.20	.25	.15			
2	Multiply line 1 by average * hours100		A Maria Arabi			44.		
3	Average hrs. per phase	40	20	25	15			
4	Adjustments ** for hours per phase Use 1 for added time and for less time	.3	.5	.8	.3			
5	Adjusted hrs. per phase. Multiply line 3 by line 4.	12	10	20	<i>4</i> .5			
	Total Labor Hours - sum across line 5					47		

<sup>\*</sup> Average hours per hour of instruction
\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

**Short Worksheet: Development Time** 

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction
Course Name: AMEDD Worldwide Personnel Mgmt. Course Media: Computer Based Training
Level: 1

		Analysis	Design	Development	Implementation	Sums
1	Percentage of Time Spent by Task Type by Level	.40	.20	.25	.15	
2	Multiply line 1 by average * hours100					
3	Average hrs. per phase	40	20	25	15	
4	Adjustments ** for hours per phase Use 1 for added time and for less time	.3	.5	.8	.3	2 2 de la companya del companya de la companya del companya de la
5	Adjusted hrs. per phase. Multiply line 3 by line 4.	12	10	20	4.5	
	Total Labor Hours - sum across line 5					47

<sup>\*</sup> Average hours per hour of instruction

<sup>\*\*</sup> Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

# **Course Cost Estimation Worksheet**

	Course Cost Estimate Worksneet	ksheet: Web Based	l Training				
1	Course Name: AMEDD Worldwide Course Number: Personnel Mgmt. Course A0423						
1	Write the sum from Refined Estimates the sum from Refined Estimates as the sum of the su	•	Hrs. 47				
2	Average hourly labor cost in dollars		\$ 50				
3	Multiple line 1 by line 2 and put the		\$ 2350				
4	Actual number of classroom equiva	alent hours to be	Hrs. 54				
5	Compression: If conversion to asymmetriply line 4 by .7 (seven tenths) on line 5. If not a conversion to asyskip line 5	Hrs. 38					
6	Multiply line 3 by line 5 if a conver asynchronous delivery <b>OR</b> line 3 b conversion to asynchronous delive on line 6.	y line 4 if not a	\$ 89,300				
	Do not use lines 7 to 12 for any costs that are to be shared.						
7	Infrastructure Costs		\$				
8	Recurring Costs		\$				
9	Delivery Labor Costs		\$				
10	Travel Costs		\$				
11	Miscellaneous Costs		\$				
12	Add line 7 to 12		\$				
13	Total Cost - Add lines 6 and 12.		\$ 89,300				
14	Number of potential students		# 300				
15	Average Cost Per Student Divide	line 13 by line 14	\$ 298				

# **Course Cost Estimation Worksheet**

	Course Cost Estimate Works	heet: Computer Ba	sed Training
	Irse Name: AMEDD Worldwide onnel Mgmt. Course	Course Number:	<u> </u>
1	Write the sum from Refined Estimated number of hrs. per hr. o	ate Worksheet,	Hrs. 47
2	Average hourly labor cost in dollar	S	\$ 50
3	Multiple line 1 by line 2 and put the	e results on line 3.	\$ 2350
4	Actual number of classroom equivoconverted or developed.		Hrs. 54
5	Compression: If conversion to asy multiply line 4 by .7 (seven tenths) on line 5. If not a conversion to asy skip line 5	and put the results	Hrs. 38
6	Multiply line 3 by line 5 if a conver asynchronous delivery <b>OR</b> line 3 b conversion to asynchronous delive on line 6.	y line 4 if not a	\$ 89,300
	Do not use lines 7 to 12 for an	y costs that are to	be shared.
7	Infrastructure Costs		\$
8	Recurring Costs		\$
9	Delivery Labor Costs		\$
10	Travel Costs		\$
11	Miscellaneous Costs		\$
12	Add line 7 to 12		\$
13	Total Cost - Add lines 6 and 12.		\$ 89,300
14	Number of potential students		# 300
15	Average Cost Per Student. Divide	line 13 by line 14	\$ 298

Cost Estimate for a Single Course Over a Five Year Period

Course Name: AMEDD Worldwind Mgmt. Course				Course Number: A0423					
Technology Selected	Leve	l 1	Level 2		Level 3	Level 4			
WBT	X			+					
CBT									
VTT	Low				High	L			
Other									
Cost Factors			Values			So	urce		
1. Labor hours year 1		17				30	ruice		
2. Labor hours year 2			86		Course T	echnology l	Match Table		
3. Labor hours year 3			86		Course Technology Match Table Technology Interactivity Factors Table				
4. Labor hours year 4			86		1 00111010	gy mioraom	ing radiois rabio		
5. Labor hours year 5			86		-				
6. Subtotal		89							
7. Average labor cost		\$5							
8. Total labor Cost over 5 yr. p	eriod								
Multiply line 6 by line 7	eriou.	\$ 446,500							
Additional Development/ Deli	very C	net	By Year			·			
9. Cost year 1	ory o		-0-		Data to S	unnort Cos	t Analysis Worksheet		
10. Cost year 2			-0-		Data to 0	арроп соз	Allalysis Worksheet		
11. Cost year 3			-0-						
12. Cost year 4			-0-						
13. Cost year 5			-0-						
14. Total Additional Costs .		Ψ					7,000		
Sum lines 9 to 13 and enter line 14	on	\$	-0-						
15. Total Course Cost. Add lines 8 and 14 and ente line 15	r on	\$ 4	146,500						
16. Average cost over 5 years. Divide line 15 by 5 and ente line 16.	r on	\$ 8	39,300						
17. Potential students year 1		30	00		From Cou	ırse Informa	ation Summary Sheet		
18. Total potential students year 5 (multiply line 17 by 5. and enter on line 18)	Ė	15	00						
<ul><li>19. Average cost per student y</li><li>5. (divide line 15 by line 1 enter on line 19)</li></ul>		\$ 2	298		Round up	to the near	rest whole dollar		

# Army Medical Evacuation Conference Conversion Analysis

#### ARMY MEDICAL EVACUATION COURSE

#### Course Purpose:

To use the Doctrine, Training, Organization, Leadership, Material format to facilitate an exchange of ideas and help improve the US Army Evacuation System across the operational spectrum.

#### Course Content Stability: Moderate

The is a central core of stable information, which is adjusted based on current trends in the AMEDD. In addition, the agenda is adapted based on courses critiques from previous years.

## General Presentation Style: Interactive/Collaborative

The course was structured with three or four lecture sessions each morning which all participants attended as a group, and a "round robin" format in the afternoon with one-hour small group sessions each repeated four times. All individuals attended one iteration of each of the small "working groups". The purpose of this format was to encourage involvement of participants in discussion and problem solving. For many of these sessions, a knowledgeable senior officer was "seeded" in each group to facilitate discussion and, when needed, provide a historical/doctrinal perspective regarding the issue at hand.

#### Instructional Aids:

The majority (95%) of course instructors used overhead slides or a PowerPoint presentation to assist them. Approximately 50% used handouts to supplement their presentations. There was limited use of video.

#### Hamds-on Activities

#### None

#### Degree of Instructional Interaction:

There was a high degree of active participation in the majority of the general sessions with comments, questions, and suggestions regarding the question at hand. The round robin working groups encouraged involvement of participants in discussion and problem-solving.

# Relevant Instructional Value: High

The topics presented addressed the most current issues in the evacuation field, to include recent doctrinal changes, aircraft modernization, battlefield communications, organizational structure and employment, and a review of final drafts of two revised field manuals.

#### Resemblication in

#### Prepare pre-course instruction for Distance Learning.

Due to the amount of interaction, and small group discussions during this course, it is not recommended that the entire course be converted to distance learning. Only VTT would be near appropriate. But given the highly interactive nature of the course it would have to be offered six times for the current number of students, with special preparation for each breakout session. However, pre-course materials focusing on the topics to be discussed in the "round robin" sessions (excluding rank specific workshops) would better prepare the students to make valuable contributions, and further facilitate the success of these activities at a very minimal per student cost (\$1.80).

# DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: Army Medical Evacua Conference	ation	Co	urse	e Num	ber: A	N0437			
Instructional goals of the county     Material format to facilitate an exchanacross the operational spectrum.	urse : To u	use the Do and help	ctrir imp	ne, Tra	aining, ne US	Organizatio Army Evacu	n, Leade uation Sy	ership, stem	
2. Frequency of course offering p	per vear	# 1	Ι					Yes	No
Current length of course in hour		# 35	7.	Cor	overt 1	o DL?		103	X
4. Number of hours to be convert		# 0	8.		nance			Х	
5. Number of registered students		# 125							
6. Number of potential students the	nat		<b></b>						
could benefit from the course		# 250							
9. If item 8 = Yes, Specify: Ele	ctronic Jo	ournal for	pre	-cour	se ins	truction/pre	eparatio	n	
Technology	Level 1	Level	2	Leve	el 3	Level 4	Ĭ		
WBT									
CBT									
VTT	Low			High	1				
Other									
Labor Hours Estimation Method	: Short _	Long_	_ S	Synch	rono	us			
	(	Cost Data	1						
10. Total Cost Year One					\$ 45				
11. Total Cost Year Two					\$ 45				
12. Total Cost Year Three					\$ 45				
13. Total Cost Year Four					\$ 45				
! 4. Total Cost Year Five		40.41		4.4)	\$ 45				
15. Total costs year 1 to 5 (Sur	n ot lines	10 throu	gn	14)	\$ 2,2	250			
16 Average cost veers 1 to 5 (di	منام برمانية	in line 47	- 1		Ф 45				
<ul><li>16. Average cost, years 1 to 5 (di</li><li>17. Total potential students over a</li></ul>			o by	/5)	\$ 45	<u> </u>			
(multiply the number of potential by 5.)	tial studer	nts (item 6		oove)	# 12	50			
18. Average cost per potential s	student o	ver 5-yea	r						
period. (divide the value in line 15 by	the value	in line 17	)		\$ 1.8	30			
Additio	onal Hard	waro/Sof	4.4.	aro D	oguir				
Item:	Jilai Haru	Wal C/301	LVV	ale IN		per unit	Total (	Cost	
					CUS	per unit	Total	2021	
Proposed Enhancement(s)	Cost								
Electronic Journal for pre-course	CUSL								
instruction/preparation	\$ 2 250	over five	VOC	arc					
mod donors proparation	\$ 2,230	OVEL HVE	yec	31 S					
	\$								
Total Enhancement Costs	·	over five	100	ro					
. Juli Emidnoment 003t3	Ψ Ζ,ΖΟΟ (	over live )	cal	15					
					· ····································	-		-	

# **Course Information Summary Sheet**

	Sileer		
Course Name: Army Medical Evacuation	tion Confere	ence	
Course Number: A0437			
Length of course - number of hours	of instruct	tion: 35	
Number of Registered Students: 12	5		
Number of potential students that co	ould benefi	t from this course: 250	
Instructional goals of the course: To Material format to facilitate an exchang System across the operational spectrum	o use the De	octrine, Training, Organization, Leaders	ship, on
Frequency of Course Offering: One	ce a year		
Continuing Education Credit Offered		Number:	
		IVAIIDOII	
For each item listed, check ✓ row	w marked	"Check" if observed or documen	ted.
Administrative Requirements	Check		Check
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	X	Learning to Mastery	740000
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion	X	Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval.	
Performance test – hardware			
Graphics			
2D graphics still	X	3D animation	T
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
2D difficulties		Pre recorded video /films	X
Camananaiantiana		1 TO TOOG GOO VIGEO / HITTIS	
Communications		Onen Discussion	V
Communications Audio		CODER DISCUSSION	
Audio Indirect discourse		Open Discussion  Question and answer	X

**Course Technology Match Table** 

Course Army Medical Evacuation Conference	ence	Technologies						
Administrative Requirements	Check	CBT	WBT	VTT				
Self pacing								
Group training			1.1.4					
On-demand availability								
Open entry / open exit								
Detailed student records								
Test Security								
Multiple test forms	-					1 -		
Training / Instruction Approach						1		
Lecture / Text	X							
Live Presenters (guest speakers)					<del> </del>			
Self study					<u></u>			
Demonstration			<del> </del>					
Exhibit	<del> </del>		<del> </del>					
Guided Discussion	X				-			
Simulation – knowledge based	"							
Simulation - hardware						-		
Problem solving exercises								
Learning to Mastery						-		
Practice / drill			<del>-</del>					
Structured Review								
Feedback on performance						-		
Remediation	-					-		
Group activities/collaborative tasks		1.						
Testing Types	1					Щ.		
Objective knowledge tests	T				T	1		
Essay	1					-		
Performance test – "paper" exercise	<del></del>					-		
Performance test – hardware simulation	1							
Performance test – hardware	· · · · · · · · · · · · · · · · · · ·					-		
Oral testing						-		
No testing/Student course evaluation	Х							
Graphics	1	l		L		1		
2D graphics still	X					T		
3D graphics still						-		
2D animation						<del>  -</del>		
3D animation			<del> </del>		-	-		
2D interactive animation						+		
3D interactive animation		-	<del>                                     </del>			-		
Pre recorded video /films	X							
Communications		l		1		1		
Audio		Ī	T	1	1	Τ		
Indirect discourse								
Assigned reading						-		
Open Discussion	Х							
Question and answer opportunities	X							

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Cost Estimate for a Single Course Over a Five Year Period

Cost Estimate for a Single Co Course Name: Army Medical E Conference				ourse Numbe	er: A0437	
Technology Selected	Leve	11	Level 2	Level 3	Do Not Convert	
WBT						X
CBT						Transfer of the second of the
VTT	Low			High		
Other						
Coat Factors						
Cost Factors			Values		Sou	ırce
1. Labor hours year 1		0		<u> </u>	t	
2. Labor hours year 2		0			echnology M	
3. Labor hours year 3		0		i ecnnolo	gy interactivi	ity Factors Table
4. Labor hours year 4		0				
5. Labor hours year 5		0				
6. Subtotal		Φ.				
7. Average labor cost	<del></del>	\$5	0			
8. Total labor Cost over 5-yr.	period.	\$ 0	)			
Multiply line 6 by line 7			D 1/			
Additional Development/ Del	very C					
9. Cost year 1			150	Data to S	Support Cost	Analysis Worksheet
10. Cost year 2		<u> </u>	150			
11. Cost year 3			150			
12. Cost year 4			150			
13. Cost year 5		\$ 4	150			was .
14. Total Additional Costs. Sum lines 9 to 13 and enter line 14	on	\$ 2	2,250			
15. Total Course Cost. Add lines 8 and 14 and ente line 15	er on	\$ 2	2,250			
<ol> <li>Average cost over 5 years.</li> <li>Divide line 15 by 5 and enter line 16.</li> </ol>	er on		150			
17. Potential students year 1		25	50	From Co.	urse Informat	tion Summary Sheet
18. Total potential students yea 5 (multiply line 17 by 5. an enter on line 18)	d	12	50			
<ol> <li>Average cost per student y</li> <li>(divide line 15 by line on terms on line 19)</li> </ol>		\$ 1	1.80			

U.S. Army Health Care Logistics Conference Conversion Analysis

## US ARMY HEALTH CARE LOGISTICS

# Course Purpose:

The training of medical logistics professionals to enhance medical readiness overall and the efficient support provisions of medical logistics to the Army health care system. To train Army medical logisticians to be successful in a highly complex and sophisticated environment which spans the medical support of a Force Projection Army to the unique mix of military and private sector logistics practices necessary to support today's Military Health System. To provide a forum for junior officers to gain considerable insight into the numerous professional opportunities afforded them in the medical logistics field.

#### Course Content Stability: Moderate

Approximately 60% of the course content changes yearly.

#### General Presentation Style: Distributive

The information was delivered using a lecture format as the primary vehicle in which one instructor presented information to many learners.

#### Instructional Aids:

Presentations were supported by slides, overheads, Power Point presentations, and some video

#### Hands-on Activities:

None

#### Degree of Instructional Interaction:

Question and answer periods followed each of the lectures. These were informational exchanges. In addition, there was a high level of informational exchange during the poster session. These exchanges had high instructional value in that they were directly tied to the course goal of improving research skills.

#### Relevant Instructional Value:

High

The majority of presentations were focused directly on the needs of health care logisticians or provided needed general background.

#### Recommendations

#### Convert to Web-Based Training.

The US Army Health care Logistics Conference was a large conference with 450+ registered attendees and 55 presenters. The majority of breakout sessions were offered twice to allow participants to attend each presentation without conflicting with other presentations. Excluding strictly conference related activities the course contained 50 hours of instruction, 13 hours in the plenary sessions and 33 hours in breakout sessions. Because of the large number of presenters. VTT would prove expensive as well as extremely difficult to organize and manage. Web Based Training is an ideal conversion medium for this course. The use of WBT or CBT would require significant effort to reorganize the content into logical blocks. While the number of potential participants is very near actual participants (500 to 450), potential cost savings and increased flexibility would make this conversion attractive.

# **DISTANCE LEARNING CONVERSION REPORT FORM**

Course Name: US Army Health Care	Logistics	Co	ours	e Num	ber:	A0438				
1. Instructional goals of the course readiness overall and the efficient support of train Army medical logisticians to be which spans the medical support of a fraction of the sector logistics practices necessary to junior officers to gain considerable insignate medical logistics field.	port provis successf Force Proje support to ght into the	ions of m ful in a hiç ection Ari day's Mil e numero	nedica ghly o my to litary	al logis comple the u Health	stics to ex and nique Syste	the Arr sophist mix of n em. To	ny ho ticate nilita prov	ealth care ed enviror ry and pri ide a foru	e systenment ivate im for	em.
2. Frequency of course offering pe		# 1							Yes	No
3. Current length of course in hour		# 50	7.			to DL?			Χ	
4. Number of hours to be converted	:d	# 50	8.	Enh	nance	?				X
<ol><li>Number of registered students</li></ol>		# 450								
6. Number of potential students th	at				,					
could benefit from the course		# 500								
9. If item 8 = Yes, Specify:										
Technology	Level 1	Level	12	Leve	el 3	Level	4			
WBT		X								
CBT										
VTT	Low			High					***	
Other										
Labor Hours Estimation Method:  10. Total Cost Year One		X_ Long		Sync	hron					
11. Total Cost Year Two						2,750				
12. Total Cost Year Three					\$ 97					
13. Total Cost Year Four					\$ 97	·				
! 4. Total Cost Year Five					\$ 97					
	of lines	10 thus		4.41	\$ 97	,				
15. Total costs year 1 to 5 (Sum	of lines	10 thro	ugn	14)	<b>\$ 55</b>	3,350				
16. Average cost, years 1 to 5 (div				(5)	\$ 11	0,670				
<ol> <li>Total potential students over a (multiply the number of potenti by 5.)</li> </ol>	ial studen	nts (item	6 at	oove)	# 25	00				
18. Average cost per potential s period. (divide the value in line 15 by t		_			\$ 22	<b>ว</b>				
(divide the value in line 15 by t	ile value	III III IC I	1)		ΨΖΖ					
Additio	nal Hard	ware/So	oftwa	are R	equir	ed				
Item:						t per u	nit	Total C	ost	
Proposed Enhancement(s)	Cost									
	\$									
	\$						-		-	
	\$							171000		
Total Enhancement Costs	\$									
Company of the Compan	Ψ									

**Instructional Formats and Physical Training Requirements** 

Course Name: US Army Health Care Logistics Course Number: A0438

% of Course Using this Instructional Format	Format	Description	Physical Presence Required?
91%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
3%	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
6%	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
White 1777 / January 1884	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

Panel Discussions and Group discussions Comprised less than 9% of the conference and were also conducted as breakout sessions, and therefore not required for all students. Because these sessions were not required of all students they will not be considered critical factors for the remainder of the conversion analysis.

## **Course Information Summary Sheet**

Course Name: US Army Health Care Logistics

Course Number: A0438

Length of course - number of hours of instruction: Number of Registered Students: 450

Number of potential students that could benefit from this course: 500

**Instructional goals of the course:** The training of medical logistics professionals to enhance medical readiness overall and the efficient support provisions of medical logistics to the Army health care system. To train Army medical logisticians to be successful in a highly complex and sophisticated environment which spans the medical support of a Force Projection Army to the unique mix of military and private sector logistics practices necessary to support today's Military Health System. To provide a forum for junior officers to gain considerable insight into the numerous professional opportunities afforded them in the medical logistics field.

Frequency of Course Offering: Once a Year

Continuing Education Credit Offered? None Number: N/A

Administrative Requirements	Check		Chec
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	Х	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	_
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	
Simulation (roll play, in-basket)		•	
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	T
Essay		Oral testing	-
Performance test –"paper"		No testing/Student course eval.	X
Performance test – hardware			
Graphics			
2D graphics still	X	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	Х
Communications			
Audio		Open Discussion	
Indirect discourse		Question and answer	
Assigned reading			

**Course Technology Match Table** 

Course (Name) US Army Health Care Logistics		Technologies					
Administrative Requirements	Check	СВТ	WBT	VTT	T	T	
Self pacing						-	
Group training	1						
On-demand availability				1 -		-	
Open entry / open exit			-				
Detailed student records						-	
Test Security							
Multiple test forms	-			-			
Training / Instruction Approach			-	<del> </del>			
Lecture / Text	X		-	<del></del>			
Live Presenters (guest speakers)	<del>  ^</del>						
Self study			1				
Demonstration							
Exhibit			-	-			
Guided Discussion						-	
Simulation – knowledge based					-		
Simulation - hardware							
Problem solving exercises			·				
Learning to Mastery	-						
Practice / drill	-	-					
Structured Review							
Feedback on performance				_		-	
Remediation	-						
Group activities/collaborative tasks Testing Types					1		
Objective knowledge tests	Т	т		-	1	1	
						ļ	
Essay		*.					
Performance test – "paper" exercise  Performance test – hardware simulation				_			
Performance test – hardware simulation	ļ					_	
	_						
Oral testing							
No testing/Student course evaluation	<u> </u>	ļ					
Graphics 2D graphics atill	1		<u> </u>				
2D graphics still 3D graphics still	X						
2D animation					ļ		
3D animation							
2D interactive animation							
3D interactive animation	1						
Pre recorded video /films	X	<u> </u>					
Communications	·	7		. <sub>T</sub>			
Audio							
Indirect discourse							
Assigned reading							
Open Discussion							
Question and answer opportunities	1	A 100 100 100 100 100 100 100 100 100 10		į į			

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Course Name: US Army Health Care Logistics	umber: A	0438			
Asynchronous Course	V	VFR Rase	ed Trainii	7.C	
Interactivity Factors	Level 1	Level 2	Level 3	Level 4	
Administrative Requirements					
Self pacing		>>>>>	>>>>>>	>>>>>	
Group training					
On-demand availability		>>>>>	>>>>>	>>>>>	
Open entry / open exit		>>>>>	>>>>>>	>>>>>	
Detailed student records		>>>>>>	>>>>>>	>>>>>	
Test Security		>>>>>>	>>>>>>		
Multiple test forms			>>>>>>	>>>>>>	
Training / Instruction Approach					
Lecture / Text	V	>>>>>>	~~~~~		
	Х	7377777	>>>>>>	>>>>>	
Live Presenters (guest speakers)					
Self study		>>>>>>	>>>>>>	>>>>>	
Demonstration			>>>>>	>>>>>	
Exhibit			>>>>>	>>>>>	
Guided Discussion					
Simulation – knowledge based			>>>>>>	>>>>>	
Simulation - hardware					
Problem solving exercises			>>>>>>	>>>>>	
Learning to Mastery		>>>>>>	>>>>>>	>>>>>	
Practice / drill		>>>>>	>>>>>>	>>>>>	
Structured Review				>>>>>	
Feedback on performance			>>>>>>	>>>>>	
Remediation			>>>>>>	>>>>>	
Group activities/collaborative tasks					
Testing Types					
Objective knowledge tests		>>>>>	>>>>>>	>>>>>>	
Essay					
Performance test –"paper" exercise			>>>>>>	>>>>>	
Performance test – hardware simulation					
Performance test – hardware					
Oral testing					
No testing/Student course evaluation	Х	>>>>>>	>>>>>	>>>>>	
Graphics					
2D graphics still	Х	>>>>>	>>>>>	>>>>>	
3D graphics still			>>>>>>	>>>>>	
2D animation			>>>>>>	>>>>>	
3D animation				>>>>>	
2D interactive animation				>>>>>	
3D interactive animation					
Pre recorded video /films		Χ	>>>>>	>>>>>	
Communications			I	l	
Audio	1	>>>>>>	>>>>>	>>>>>	
Indirect discourse	4				
Assigned reading		*******			
Open Discussion		>>>>>	>>>>>	>>>>>	
COURT DISCUSSION					

Shaded blocks indicate factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Course Name: US Army Health Care Logistics	Course Number: A0438							
Asynchronous Course	Con	nputer B	ased Trai	ning				
Interactivity Factors	Level 1	Level 2	Level 3	Level 4				
Administrative Requirements								
Self pacing		>>>>>>	>>>>>	>>>>>				
Group training								
On-demand availability		>>>>>	>>>>>	>>>>>				
Open entry / open exit		>>>>>	>>>>>	>>>>>				
Detailed student records	1 1							
Test Security								
Multiple test forms	The second of		>>>>>>	>>>>>				
Training / Instruction Approach								
Lecture / Text	Х	>>>>>	>>>>>>	>>>>>				
Live Presenters (guest speakers)	** ** ** ** ** ** ** ** ** ** ** ** **							
Self study		>>>>>>	>>>>>>	>>>>>				
Demonstration			>>>>>>	>>>>>				
Exhibit			>>>>>>	>>>>>				
Guided Discussion								
Simulation – knowledge based			>>>>>>	>>>>>				
Simulation - hardware								
Problem solving exercises		>>>>>	>>>>>	>>>>>				
Learning to Mastery		>>>>>	>>>>>>	>>>>>				
Practice / drill		>>>>>>	>>>>>>	>>>>>				
Structured Review			>>>>>>	>>>>>				
Feedback on performance		>>>>>	>>>>>>	>>>>>				
Remediation			>>>>>>	>>>>>				
Group activities/collaborative tasks								
Testing Types								
Objective knowledge tests		>>>>>>	>>>>>>	>>>>>				
Essay		***						
Performance test - "paper" exercise			>>>>>>	>>>>>				
Performance test – hardware simulation	_	1,111		>>>>>>				
Performance test hardware								
Oral testing	_							
No testing/Student course evaluation	X	>>>>>>	>>>>>>	>>>>>				
Graphics								
2D graphics still	Х	>>>>>	>>>>>>	>>>>>				
3D graphics still	^		>>>>>>	>>>>>				
2D animation			>>>>>>	>>>>>				
3D animation				>>>>>				
2D interactive animation				>>>>>				
3D interactive animation								
Pre recorded video /films		Х	>>>>>	>>>>>				
Communications			1	1				
Audio	T	>>>>>	>>>>>>	>>>>>				
Indirect discourse								
Assigned reading		>>>>>	>>>>>	>>>>>				
				/////////				
Open Discussion								
Question and answer opportunities								

Shaded blocks indicate factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Course Name: US Army Health Care	Course Number:	A0438
Logistics		
Synchronous Course		eletraining
Interactivity Factors	Level 1 Low	Level 2 High
Administrative Requirements		
Self pacing		
Group training		>>>>>
On-demand availability		
Open entry / open exit		
Detailed student records		
Test Security		>>>>>>
Multiple test forms		>>>>>>
Training / Instruction Approach		
Lecture / Text	Х	>>>>>
Live Presenters (guest speakers)		>>>>>
Self study		
Demonstration		>>>>>
Exhibit		>>>>>
Guided Discussion		
Simulation – knowledge based		>>>>>>
Simulation - hardware		
Problem solving exercises		
Learning to Mastery		
Practice / drill		
Structured Review		
Feedback on performance		
Remediation		
Group activities/collaborative tasks		
Testing Types		
Objective knowledge tests		
Essay		
Performance test –"paper" exercise		
Performance test – hardware simulation		
Performance test – hardware		
Oral testing		
No testing/Student course evaluation	Х	>>>>>>
Graphics	^	
2D graphics still	X	>>>>>>
3D graphics still	^	>>>>>>
2D animation		>>>>>>
3D animation		>>>>>>
2D interactive animation		
3D interactive animation		
Pre recorded video /films	v	>>>>>
Communications	X	
Audio	[	>>>>>>
Indirect discourse		
Assigned reading		*****
Open Discussion		>>>>>
Open Discussion		
Question and answer opportunities		

Shaded blocks indicates factors NOT supported by that level of technology Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

**Short Worksheet: Development Time** 

	Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction						
Course Name: US Army Health Care Logistics Media: WEB Based Training Level: 2							
		Analysis	Design	Development	Implementation	Sums	
1	Percentage of Time Spent by Task Type by Level	.40	.20	.25	.15	1 1 2 1 1 1 1 1 1	
2	Multiply line 1 by average * hours200	asis de la companya d	, 0° 1 		# 1   W   W   W   W   W   W   W   W   W	1 .54,43	
3	Average hrs. per phase	80	40	50	30		
4	Adjustments ** for hours per phase Use 1 for added time and for less time	.3	.5	.8	.3		
5	Adjusted hrs. Per phase. Multiply line 3 by line 4.	24	20	40	9		
	Total Labor Hours - sum across line 5			.).		93	

<sup>\*</sup> Average hours per hour of instruction

\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

**Short Worksheet: Development Time** 

Sh	Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction						
Course Name: US Army Health Care Logistics Media: Computer Based Training Level: 2							
		Analysis	Design	Development	Implementation	Sums	
1	Percentage of Time Spent by Task Type by Level	.40	.20	.25	.15	and the second of	
2	Multiply line 1 by average * hours	y de la companya de l	Park Land	en e			
3	Average hrs. per phase	80	40	50	30	liggapister District	
4	Adjustments ** for hours per phase Use 1 for added time and for less time	.3	.5	.8	.3		
5	Adjusted hrs. Per phase. Multiply line 3 by line 4.	24	20	40	9		
	Total Labor Hours - sum across line 5				19. 19. 19. 19. 19. 19. 19. 19. 19. 19.	93	

<sup>\*</sup> Average hours per hour of instruction

\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

# **Course Cost Estimation Worksheet**

Course Cost Estimate Worksheet: Web Based Training					
	Course Name: US Army Health Care Logistics  Course Number: A0438				
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.		Hrs. 93		
2	Average hourly labor cost in dollars		\$ 50		
3	Multiple line 1 by line 2 and put the results on line 3.		\$ 4650		
4	Actual number of classroom equivalent hours to be converted or developed.		Hrs. 50		
5	Compression: If conversions to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5		Hrs. 35		
6	Multiply line 3 by line 5 if a conversion asynchronous delivery <b>OR</b> line 3 beconversion to asynchronous deliver on line 6.	\$ 162,750			
	Do not use lines 7 to 12 for any costs that are to be shared.				
7	Infrastructure Costs		\$		
8	Recurring Costs		\$		
9	Delivery Labor Costs		\$		
10	Travel Costs		\$		
11	Miscellaneous Costs		\$		
12	Add line 7 to 12		\$		
13	Total Cost - Add lines 6 and 12.		\$ 162,750		
14	Number of potential students		# 500		
15	Average Cost Per Student Divide line 13 by line 14		\$ 326		

# **Course Cost Estimation Worksheet**

	Course Cost Estimate Works	heet: Computer Ba	sed Training		
<b>Cou</b> Logist	rse Name: US Army Health Care	Course Number: /			
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.		Hrs. 93		
2	Average hourly labor cost in dollars		\$ 50		
3	Multiple line 1 by line 2 and put the results on line 3.		\$ 4650		
4	Actual number of classroom equivalent hours to be converted or developed.		Hrs. 50		
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5		Hrs. 35		
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery <b>OR</b> line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.		\$ 162,750		
Do not use lines 7 to 12 for any costs that are to be shared.					
7	Infrastructure Costs		\$		
8	Recurring Costs		\$		
9	Delivery Labor Costs		\$		
10	Travel Costs		\$		
11	Miscellaneous Costs		\$		
12	Add line 7 to 12		\$		
13	Total Cost - Add lines 6 and 12.		\$ 162,750		
14	Number of potential students		# 500		
15	Average Cost Per Student Divide line 13 by line 14		\$ 326		

Cost Estimate for a Single Course Over a Five Year Period

Course Name: US Army Health	me: US Army Health Care Logistics Course Number: A0438						
Technology Selected	Leve	11	Level	2	Level 3	Level 4	
WBT			Х				
СВТ							
VTT	Low				High		
Other							
Cost Factors			Values			So	urce
I. Labor hours year 1		32					uicc
2. Labor hours year 2		19			Course T	echnology N	Natch Table
B. Labor hours year 3		1953		Course Technology Match Table Technology Interactivity Factors Table			
Labor hours year 4		19				J,	, radioid rabio
5. Labor hours year 5			53		-		
5. Subtotal			,067				
. Average labor cost		\$50					
B. Total labor Cost over 5-yr.	period.						
Multiply line 6 by line 7		\$ 5	53,350				
Additional Development/ Del	verv C	ost	By Year	r			
O. Cost year 1		\$ (		_	Data to S	upport Cost	Analysis Worksheet
0. Cost year 2		\$ (					7 istaly of TV of Kontoot
1. Cost year 3		\$ (			-		
2. Cost year 4		\$ (					
3. Cost year 5		\$ (					
4. Total Additional Costs.							10194-1
Sum lines 9 to 13 and enter	on	\$0					
line 14							
5. Total Course Cost.							
Add lines 8 and 14 and ente	er on	\$ 5	553,350				
line 15							
6. Average cost over 5 years.							
Divide line 15 by 5 and ente	er on	\$ 1	10,670				
line 16.							
7. Potential students year 1		50	)()		From Coι	ırse Informa	ntion Summary Sheet
18. Total potential students yea		^-	00				
5 (multiply line 17 by 5. an	a	25	UU				
enter on line 18)	4 1						
19. Average cost per student y		¢ ^	22		Pound	to the man	enat udanla alallas
5. (divide line 15 by line 18 and enter on line 19)			\$ 222		Round up to the nearest whole dollar		esi whole dollar

**NOTE:** 40% of the course content does not change from year to year. Estimated labor hours for years 2 to 5 are adjusted for this factor.

# Phyllis J. Verhonick Research Course Conversion Analysis

#### PHYLLIS J. VERHONICK RESEARCH COURSE

### Course Purpose:

- To provide Army Nurse Corps Officers, other military officers, and civilian nurses engaged in multidisciplinary and/or collaborative research with a course of instruction to nurture the generation. dissemination, and use of research to continuously improve clinical practice.
- To provide a vehicle for those with intermediate or advanced research skills to exchange information on research theory, methodology, and funding, as well as to present study findings.

#### Course Content Stability: Low

Invited speakers address topics relevant to general research topics (ethics, outcomes issues, etc.), while completed research abstracts change to reflect the latest research.

## General Presentation Style: Distributive

The information was delivered using a lecture format as the primary vehicle in which one instructor presenters information to many learners. There was a poster session as well in which presented stood by exhibits of their research, and were available to answer questions to those who attended.

#### Instructional Aids

Presenters were supported by PowerPoint slides that were projected either from a 35mm slide projector. or directly from a computer. One speaker used a brief videotape to support the lecture

#### Hands-of Activities

None

#### Degree of Instructional Interaction:

Question and answer periods followed each of the lectures. These were informational exchanges. In addition, there was a high level of informational exchange during the poster session. These exchanges had high instructional value in that they were directly tied to the course goal of improving research skills.

#### Relevant Instructional Value: High

The course content was clearly focused, and presented the students with serious issues relevant to research at a general level, as well as several examples of on-going and recently completed research. The instructional approach allowed the research results to be viewed not only in terms of their intrinsic value to the nursing profession, but also within the parameters of the mechanics of research.

#### Recommendation:

#### Convert to Web-Based Training.

The instructional value of this course, although presently high, would benefit from delivery on a distance learning technology that allowed for one-to-many communications, and an asynchronous delivery. Web based training was identified as the most cost effective means given the number of presenters and potential students, supplemented by an electronic bulletin board for the benefit of student presenters.

While a Web based training program would be of benefit to the 3400 potential participants, the student presenters, who would become submitters in a Web based training environment, would receive little benefit. To assure that the student submitters receive the type of feedback that would benefit their research, a Web Based "bulletin board" can be established for student presenters through one of the numerous web sites maintained by the Army.

A drawback to an electronic bulletin board is that it can be very time consuming to those having to answer numerous questions, over an extended period of time. Since Web based training will allow participants to sign-in at any time, a bulletin board used as an integral part of the course, would require that submitters, whether or not students, answer questions in a timely manner throughout the life of the course. This would be a significant added responsibility that many individuals, military or civilian, may not be willing or able to assume.

Given the potential number of users, and that student presenters have other responsibilities, student presenters should be free to determine their own level of participation on the bulletin board. Participation in the bulletin board should be voluntary and not considered a required portion of the course.

## DISTANCE LEARNING CONVERSION REPORT FORM

S. C. M. D. W. L.V.		TLI OIL	• •	<u> </u>				
Course Name: Phyllis J. Verhonick Re Course	esearch	Cou	urs	e Numb	er: ,	A0513		
Course								
1. Instructional goals of the cou	rse : To p	rovide Arn	nv N	Nurse Co	orps	Officers of	ner military offic	ers
and civilian nurses engaged in multidis								
to nurture the generation, dissemination	n, and use	of resear	ch t	to contin	uous	slv improve o	clinical practice	
To provide a vehicle for those with inter								
research theory, methodology, and fun	ding, as w	ell as to p	rese	ent study	y find	dings.	•	
2. Frequency of course offering pe	er year:	# 1					Yes	No
3. Current length of course in hour		# 26	7.	. Conv	ert t	to DL?	Х	
4. Number of hours to be converte	d	# 26	8.	. Enha	nce	?	Х	
5. Number of registered students		# 100						
6. Number of potential students that	at							
could benefit from the course		# 3400						
9. If item 8 = Yes, Specify: Esta	ablish elec	ctronic bu	ılle	tin boar	d			
Technology	Level 1	Level	2	Level	3	Level 4		
WBT	Х							
CBT								
VTT	Low			High		<u></u>		
Other				<u> </u>				
						L	L	
<b>Labor Hours Estimation Method:</b>	Short >	Long		Synch	ron	ous		
	<del></del>							
	С	ost Data	1					
10. Total Cost Year One				3	\$ 42	,770		
11. Total Cost Year Two						,770		
12. Total Cost Year Three						,770		
13. Total Cost Year Four						,770		
! 4. Total Cost Year Five						,770		
15. Total costs year 1 to 5 (Sum	of lines	10 throu	ıqh			3,850		
16. Average cost, years 1 to 5 (div	ide value	in line 15	5 b	v 5)   3	\$ 42	,770		
17. Total potential students over a								
(multiply the number of potenti	al studen	ts (item 6	al	oove)				
by 5.)		`		<i>i</i> ‡	<mark># 17</mark>	,000		
18. Average cost per potential s	tudent ov	er 5-yea	ır			·		
period.		•						
(divide the value in line 15 by t	he value	in line 17	)	] 5	\$ 12	.58		
Additio	nal Hard	ware/Sof	tw	are Red	quir	ed	•	
Item:				(	Cos	t per unit	<b>Total Cost</b>	
Proposed Enhancement(s)	Cost						<u> </u>	
	\$							
	\$							
	\$							
Total Enhancement Costs	\$							
i otai Limantement COStS	Ψ							

**Instructional Formats and Physical Training Requirements** 

Course Name: Phyllis J. Verhonick Research Course Number: A0513

Course

of Course ng this tructional mat	Format	Description	Physical Presence Required?				
88%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No				
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No				
7%	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.					
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?				
5%	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.					
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.					
)))))))))))	Student Verbal Presentations	Students present verbal information to the larger group.	?				
	Student Procedural Presentations	Students present procedural information to the larger group.	?				
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?				
	Shop Activity	Hands-on technical tasks/procedures.	?				
	Lab Activity	Hands-on laboratory tasks/procedures.	7				

### **Course Information Summary Sheet**

Course Name: Phyllis J. Verhonick Research Course

Course Number: A0513

Length of course - number of hours of instruction: 26

Number of Registered Students: 100

Number of potential students that could benefit from this course: 3400

**Instructional goals of the course:** To provide Army Nurse Corps Officers, other military officers, and civilian nurses engaged in multidisciplinary and/or collaborative research with a course of instruction to nurture the generation, dissemination, and use of research to continuously improve clinical practice.

To provide a vehicle for those with intermediate or advanced research skills to exchange information on research theory, methodology, and funding, as well as to present study findings.

Frequency of Course Offering: Biannually

Continuing Education Credit Offered? Yes Number: 29.4

For each item listed, check ✓ row marked "Check" if observed or documented.

Administrative Requirements	Check		Chec
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	Х	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit	X	Remediation	
Guided Discussion	Х	Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test "paper"		No testing/Student course eval.	Х
Performance test – hardware			
Graphics			
2D graphics still	X	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	
Communications			
Audio		Open Discussion	
Indirect discourse		Question and answer	
Assigned reading			

**Note:** In order to provide student submitters with a level of interactivity comparable to the poster session and feedback possible after verbal presentations, an electronic bulletin board is proposed. Therefore factors related to group discussion (open discussion) or poster sessions (question and answer) will not be considered as limiting factors in the selection of a technology.

Video uses for portion of one presentation (>5%), not considered in the selection of a technology.

**Course Technology Match Table** 

Course Phyllis J. Verhonick Research Co	Technologies					
Administrative Requirements	Check	CBT	WBT	VTT		
Self pacing						
Group training						
On-demand availability						
Open entry / open exit						-
Detailed student records						<del></del>
Test Security						
Multiple test forms				1		-
Training / Instruction Approach						
Lecture / Text	Х				i	
Live Presenters (guest speakers)			,			-
Self study						-
Demonstration						+
Exhibit	X					-
Guided Discussion	$\frac{x}{x}$					
Simulation – knowledge based	<del>  ^</del>	1				
Simulation - hardware						_
Problem solving exercises						-
Learning to Mastery						
Practice / drill						-
Structured Review						-
Feedback on performance				_		
Remediation			-	_		-
Group activities/collaborative tasks	····					
Testing Types						
Objective knowledge tests		1			1	-
Essay Essay			1			_
Performance test –"paper" exercise				- 16 . 16		-
Performance test – paper exercise  Performance test – hardware simulation				_		
Performance test – hardware						
Oral testing		- ' '				
	- V					
No testing/Student course evaluation  Graphics	X					
	T	1	T		·	
2D graphics still 3D graphics still	X					
				-		<del> </del>
2D animation						<del></del>
3D animation						
2D interactive animation						
3D interactive animation						
Pre recorded video /films						
Communications		T	1			
Audio						
Indirect discourse						
Assigned reading						
Open Discussion						
Question and answer opportunities						

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Course Name: Phyllis J. Verhonick Research Course	Course Number: A0513							
Asynchronous Course	V	WEB Based Training						
Interactivity Factors	Level 1	Level 2	Level 3	Level 4				
Administrative Requirements								
Self pacing		>>>>>>	>>>>>>	>>>>>				
Group training								
On-demand availability		>>>>>>	>>>>>>	>>>>>				
Open entry / open exit		>>>>>>	>>>>>	>>>>>				
Detailed student records		>>>>>>	>>>>>>	>>>>>				
Test Security		>>>>>>	>>>>>>	>>>>>				
Multiple test forms			>>>>>>	>>>>>				
Fraining / Instruction Approach								
Lecture / Text	Х	>>>>>>	>>>>>>	>>>>>				
Live Presenters (guest speakers)	Total Contract			1 1 1				
Self study		>>>>>	>>>>>>	>>>>>				
Demonstration			>>>>>>	>>>>>				
Exhibit		Х	>>>>>>	>>>>>				
Guided Discussion		1	,					
Simulation – knowledge based		-	>>>>>>	>>>>>				
Simulation - hardware		•						
Problem solving exercises			>>>>>>	>>>>>				
Learning to Mastery		>>>>>>	>>>>>>	>>>>>				
Practice / drill		>>>>>>	>>>>>>	>>>>>				
Structured Review				>>>>>				
Feedback on performance	-		>>>>>>	>>>>>				
Remediation			>>>>>>	>>>>>				
Group activities/collaborative tasks			L					
Testing Types								
Objective knowledge tests		>>>>>>	>>>>>>	>>>>>				
Essay								
Performance test "paper" exercise			>>>>>	>>>>>				
Performance test – hardware simulation								
Performance test – hardware				14. 7				
Oral testing	_							
No testing/Student course evaluation	Х	>>>>>>	>>>>>>	>>>>>				
Graphics	.1		L					
2D graphics still	Х	>>>>>>	>>>>>>	>>>>>				
3D graphics still			>>>>>>	>>>>>				
2D animation			>>>>>	>>>>>				
3D animation	_	20 T 2 T		>>>>>				
2D interactive animation	_			>>>>>				
3D interactive animation								
Pre recorded video /films			>>>>>>	>>>>>				
Communications		<u> </u>		I				
Audio		>>>>>>	>>>>>	>>>>>				
Indirect discourse								
Assigned reading		******	******					
Open Discussion		>>>>>	>>>>>>	>>>>>				
Question and answer opportunities								

Shaded blocks indicate factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Course Name: Phyllis J. Verhonick Research Course	Course Number: A0513						
Asynchronous Course	Cor	nputer B	ased Tra	ining			
Interactivity Factors	Level 1	Level 2	Level 3	Level 4			
Administrative Requirements							
Self pacing		>>>>>>	>>>>>>	>>>>>			
Group training							
On-demand availability		>>>>>>	>>>>>>	>>>>>			
Open entry / open exit		>>>>>>	>>>>>>	>>>>>>			
Detailed student records							
Test Security							
Multiple test forms			>>>>>>	>>>>>			
Training / Instruction Approach							
Lecture / Text	Х	>>>>>>	>>>>>>	>>>>>			
Live Presenters (guest speakers)							
Self study		>>>>>>	>>>>>>	>>>>>			
Demonstration			>>>>>>	>>>>>			
Exhibit			>>>>>>	>>>>>			
Guided Discussion	1.5						
Simulation – knowledge based			>>>>>>	>>>>>			
Simulation - hardware			100				
Problem solving exercises		>>>>>>	>>>>>>	>>>>>			
Learning to Mastery		>>>>>>	>>>>>>	>>>>>			
Practice / drill		>>>>>>	>>>>>>	>>>>>			
Structured Review			>>>>>>	>>>>>			
Feedback on performance		>>>>>>	>>>>>>	>>>>>			
Remediation			>>>>>>	>>>>>			
Group activities/collaborative tasks							
Testing Types							
Objective knowledge tests		>>>>>>	>>>>>>	>>>>>			
Essay				******			
Performance test –"paper" exercise	_		>>>>>>	>>>>>			
Performance test – hardware simulation				>>>>>			
Performance test – hardware							
Oral testing							
No testing/Student course evaluation	Х	>>>>>>	>>>>>>	>>>>>>			
Graphics	^	1	1				
2D graphics still	Х	>>>>>>	>>>>>>	>>>>>			
3D graphics still	^		>>>>>>	>>>>>			
2D animation			>>>>>>	>>>>>			
3D animation				>>>>>			
2D interactive animation				>>>>>			
3D interactive animation							
Pre recorded video /films			>>>>>>	>>>>>			
Communications							
Audio		>>>>>>	>>>>>	>>>>>			
Indirect discourse							
Assigned reading		>>>>>>	>>>>>>	******			
				>>>>>			
Open Discussion							

Shaded blocks indicate factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Course Name: Phyllis J. Verhonick Research Course	Course Number: A0513				
Synchronous Course	Video Te	eletraining			
Interactivity Factors	Level 1 Low	Level 2 High			
Administrative Requirements					
Self pacing					
Group training		>>>>>			
On-demand availability		and the second			
Open entry / open exit					
Detailed student records	1.0				
Test Security		>>>>>>			
Multiple test forms		>>>>>			
Training / Instruction Approach					
Lecture / Text	Х	>>>>>			
Live Presenters (guest speakers)		>>>>>			
Self study					
Demonstration		>>>>>>			
Exhibit		>>>>>>			
Guided Discussion		Х			
Simulation – knowledge based		>>>>>			
Simulation - hardware					
Problem solving exercises					
Learning to Mastery					
Practice / drill					
Structured Review					
Feedback on performance					
Remediation					
Group activities/collaborative tasks					
Testing Types					
Objective knowledge tests					
Essay					
Performance test –"paper" exercise					
Performance test – hardware simulation					
Performance test – hardware					
Oral testing					
No testing/Student course evaluation	Х	>>>>>			
Graphics					
2D graphics still	X	>>>>>			
3D graphics still		>>>>>			
2D animation		>>>>>			
3D animation		>>>>>			
2D interactive animation					
3D interactive animation					
Pre recorded video /films		>>>>>			
Communications					
Audio		>>>>>			
Indirect discourse					
Assigned reading		>>>>>			
Open Discussion					
Question and answer opportunities					

Shaded blocks indicates factors NOT supported by that level of technology Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Short Worksheet: Development Time

	Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction Course Name: Phyllis J Verhonick Research Course								
	Media: WEB Based Training Level: 1								
	Percentage of Time	Analysis	Design	Development	Implementation	Sums			
1	Spent by Task Type by Level	.40	.20	.25	.15	ing Tagan Jawan Ku			
2	Multiply line 1 by average * hours100								
3	Average hrs. per phase	40	20	25	15	an Alaska j			
4	Adjustments ** for hours per phase Use 1 for added time and for less time	.3	.5	.8	.3				
5	Adjusted hrs. Per phase. Multiply line 3 by line 4.	12	10	20	4.5				
	Total Labor Hours - sum across line 5			V	8 <sup>50</sup>	47			

<sup>\*</sup> Average hours per hour of instruction

\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

### **Short Worksheet: Development Time**

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction Course Name: Phyllis J Verhonick Research Course Media: Computer Based Training Level: 1 Analysis Design Development Implementation Sums Percentage of Time Spent by Task Type .40 .20 .25 .15 by Level Multiply line 1 by . Anglinakan average \* Dalage (Millian) aniki: hours Average hrs. per 3 40 20 25 15 phase Adjustments \*\* for hours per phase Use 1.\_ for added .3 .5 .8 .3 time and .\_ for less time Adjusted hrs. Per

phase. Multiply line 3

Total Labor Hours -

sum across line 5

by line 4.

10

20

4.5

47

12

<sup>\*</sup> Average hours per hour of instruction

<sup>\*\*</sup> Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

## **Course Cost Estimation Worksheet**

	se Cost Estimation Worksneet  Course Cost Estimate Works	heet: Web Based Training						
	rse Name: Phyllis J. Verhonick Co	urse Number: A0513						
Rese	write the sum from Refined Estimate Worksheet,							
1	estimated number of hrs. per hr. of ins	·						
2	Average hourly labor cost in dollars	\$ 50						
3	Multiple line 1 by line 2 and put the re	sults on line 3. \$ 2350						
4	Actual number of classroom equivaler converted or developed.	HIS. 26						
5	Compression: If conversions to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5							
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.							
	Do not use lines 7 to 12 for any c	osts that are to be shared.	and the second s					
7	Infrastructure Costs	\$						
8	Recurring Costs	\$						
9	Delivery Labor Costs	\$						
10	Travel Costs	\$						
11	Miscellaneous Costs	\$						
12	Add line 7 to 12	\$						
13	Total Cost - Add lines 6 and 12. \$42,770							
14	Number of potential students # 3,400							
15	Average Cost Per Student Divide line	13 by line 14 \$ 12.58						
i. Lakk k <sup>erio</sup>								

## **Course Cost Estimation Worksheet**

	Course Cost Estimate Worksheet: Computer Based Training							
		Course Number: A05						
1	Write the sum from Refined Estima estimated number of hrs. per hr. of		Hrs. 47					
2	Average hourly labor cost in dollars	3	\$ 50					
3	Multiple line 1 by line 2 and put the	results on line 3.	\$ 2350					
4	Actual number of classroom equiva converted or developed.		Hrs. 26					
5	Compression: If conversion to asymptotic conversion to a convers	and put the results	Hrs. 18.2					
6	Multiply line 3 by line 5 if a conversion asynchronous delivery <b>OR</b> line 3 by conversion to asynchronous deliver on line 6.	line 4 if not a	\$ 42770					
	Do not use lines 7 to 12 for any costs that are to be shared.							
7	Infrastructure Costs	~~	\$					
8	Recurring Costs		\$					
9	Delivery Labor Costs		\$					
10	Travel Costs		\$					
11	Miscellaneous Costs		\$					
12	Add line 7 to 12		\$					
13	Total Cost - Add lines 6 and 12.		\$ 42,770					
14	Number of potential students		# 3,400					
15	Average Cost Per Student Divide li	ne 13 by line 14	\$ 12.58					

Cost Estimate for a Single Course Over a Five Year Period

Cost Estimate for a Single Co					Period Irse Numbe	m. AOE12			
Course Name: Phyllis J. Verhonick Rese Course				νOι	irse numbe	r: A0513			
Course									
Technology Selected	Technology Selected Level			:	Level 3	Level 4			
WBT	X								
CBT									
VTT	Low				High				
Other									
Cost Factors			Values			So	urce		
Labor hours year 1		85			_				
2. Labor hours year 2		85		Course Technology Match Table					
3. Labor hours year 3		85			Technolo	gy Interactiv	vity Factors Table		
4. Labor hours year 4		85							
5. Labor hours year 5		85							
6. Subtotal		42							
7. Average labor cost	ام م ند م	\$ 5	10						
8. Total labor Cost over 5-yr.	perioa.	\$ 213,850							
Multiply line 6 by line 7  Additional Development/ Deli	ivory Co	oct.	By Voor						
9. Cost year 1	ivery Co	\$0			Data to S	Cunnort Cost	Analysis Worksheet		
10. Cost year 2		\$ 0 \$ 0 \$ 0			Data to 0	ирроп ооз	Analysis Worksheet		
11. Cost year 3	-								
12. Cost year 4									
13. Cost year 5		\$ 0							
14. Total Additional Costs.		-							
Sum lines 9 to 13 and enter	r on	\$0							
line 14									
15. Total Course Cost.									
Add lines 8 and 14 and ente	er on	\$ 2	13,859						
line 15									
16. Average cost over 5 years.									
Divide line 15 by 5 and ente	er on	\$ 4	2,770						
line 16.			00		Funcia C:		-ti 0		
17. Potential students year 1			-00		From Col	urse informa	ation Summary Sheet		
18. Total potential students year 5 (multiply line 17 by 5. ar		17	000						
enter on line 18)	iu	17,	,000						
19. Average cost per student	/r 1 to								
5. (divide line 15 by line	' I	\$1:	2.58						
enter on line 19)									
· · · · · · · · · · · · · · · · · · ·					.1 .				

# Military Nursing Practice Course Conversion Analysis

#### MILITARY NURSING PRACTICE COURSE

#### Purpose

The purpose of this course is to provide nurse clinicians and middle managers (active duty and civilian) with current concepts, trends, and issues affecting the delivery of care as the military health care system transitions into the new millennium. To provide students with powerful learning tools, knowledge and information that will enable them to effectively participate in the development of appropriate clinical practices.

## Course Content Stability: Low

Topics and subject matter vary with course theme. That is, trends and practices change and the content changes to reflect these modifications.

#### General Presentation Style: Distributive

The format of the course provided for dissemination of information in primarily a lecture format, with speakers offering experiential data regarding both management and clinical care topics appropriate to the level of intended audience.

#### Instructional Aids:

Speakers generally spoke from PowerPoint slides projected from an overhead, a 35mm slide projector, or a computer.

#### Hands-on Activities:

None

#### Degree of Instructional Interaction

There was discussion solicited during and after most presentations. The exchanges were primarily informational

#### Relevant Instructional Value: High

The course content was clearly focused, and presented the students with serious issues relevant to the course objectives

#### Recommendation

#### Convert to Web-Based Training.

The instructional value of this course, although presently high, would benefit from delivery on a distance learning technology that allowed for one-to-many communications, and an asynchronous delivery. In this way, the forum that allows for the exchange of ideas would be available year-round. For example, a "bulletin board" on the Web would provide a vehicle where questions could be posted, and individuals could provide their insight after they have had some time to reflect, consult others, etc. Furthermore, younger officers would benefit from exposure to these "conversations" just from observing them develop over time. Since approximately 50% of the course can change on an annual basis, the best mode of delivery would be Web Based Training. An additional benefit from converting the course would make it possible for everyone to be exposed to all the information in the three breakout sessions (nine sessions instead of three).

## **DISTANCE LEARNING CONVERSION REPORT FORM**

Course Name: Military Nursing	Practice C	ourse	Course N	lumber: A0515	****	
1. Instructional goals of the co	urse: Top	orovide nurs	se clinicians	and middle mana	agers, active du	ty and
civilians with current concepts, tre transitions into the new millenniur	n The cou	iree provide	ing the deliv	very of care as the	military nealth	care system
enable them to effectively particip	ate in the	developmer	nt of approp	riate clinical pract	e and imbrimation ices	on that will
2. Frequency of course offering p	er vear	11		1000	Yes	No
3. Current length of course in hou		35	7. Conve	ert to DL2	X	NO
4. Number of hours to be convert		35	8. Enhan			X
5. Number of registered students		80	O. Ziman			
6. Number of potential students t		2,200				
benefit from the course		, , , , ,				
						. 1
9. If item 8 = Yes, Specify						···········
Technology	Level 1	Level 2	Level 3	Level 4		*******
WBT		Х				
CBT						
VTT	Low	<u>-</u>	High			
Other						
Labor Hours Estimation Method	d: Short _	X Long	Synchi	onous		
015.1		<del></del>				
Cost Data 10. Total Cost Year One	1			10440.550		***************************************
11. Total Cost Year Two				\$112,550		
12. Total Cost Year Three				\$56,250 \$56,250		
13. Total Cost Year Four	1			\$56,250		
14. Total Cost Year Five				\$56,250		
15. Total costs year 1 to 5 (Sun	n of lines	10 through	14)	\$337,550		
Territoria de la pentita de la companya de la compa		- unougn	17)	ψοστ,σοσ		~****
16. Average cost, years 1 to 5 (D	ivide value	in line 15 k	ov 5)	\$67,510		
17. Total potential students over				11,000		
number of potential students [item	n 6 above]	by 5.)	. ,	,		
18. Average cost per potential	student o	ver 5 year <sub>l</sub>	period.	\$31	***	
(divide the value in line 15 by the	value in lin	e 17.)				
Additional Hardware/Software	Required					
Item:				Cost per unit	Total	
					Cost	
Proposed Enhancements		Cost				
			**********			
						******
Total Enhancement Costs			· · · · · · · · · · · · · · · · · · ·			
						·

Instructional Formats and Physical Training Requirements

Course Name: Military Nursing Practice Course

Course Number: A0515

of Course Ising this Istructional ormat	Format	Description	Physical Presence Required?
100%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
D-32-31H(444444444444444444444444444444444444	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
***************************************	Lab Activity	Hands-on laboratory tasks/procedures.	?

Course Information Summary Sheet

Course Name: Military Nursing Practice Course Course Number: A0515 Length of course - number of hours of instruction: 34.5 Number of Registered Students: 80 Number of potential students that could benefit from this course: 2,200 Instructional goals of the course: To provide nurse clinicians and middle managers, active duty and civilians with current concepts, trends and issues affecting the delivery of care as the military health care system transitions into the new millennium. The course provides participants with knowledge and information that will enable them to effectively participate in the development of appropriate clinical practices. Frequency of Course Offering: Annual Continuing Education Credit Offered? Yes **Number: 34.2** For each item listed, check ✓ row marked "Check" if observed or documented. Administrative Requirements Check Self pacing Detailed student records Group training Test Security On-demand availability Multiple test forms Open entry / open exit **Training / Instruction Approach** Lecture / Text Learning to Mastery Live Presenters (guest speakers) Practice / drill Self study Structured Review Demonstration Feedback on performance **Exhibit** Remediation **Guided Discussion** Group activities/collaborative tasks Simulation (roll play, in-basket) Problem solving exercises Testing Types Objective knowledge tests Performance test hardware Essay Oral testing Performance test - "paper" No testing/Student course eval Performance test - hardware **Graphics** 2D graphics still 3D animation 3D graphics still 2D interactive animation 2D animation 3D interactive animation Pre recorded video /films Communications Audio Open Discussion Indirect discourse Question and answer opportunities Assigned reading

**Course Technology Match Table** 

Course Military Nursing Practice Course	Technologies					
Administrative Requirements	CBT	WEB	VTT	T		
Self pacing						<b>†</b>
Group training						<b> </b>
On-demand availability						-
Open entry / open exit						ļ
Detailed student records						-
Test Security						
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	1		-	<del> </del>		
Live Presenters (guest speakers)	<b>-</b>		ļ			
Self study						ļ
Demonstration			-			
Exhibit	-	-				
Guided Discussion						-
Simulation – knowledge based						
Simulation - hardware	_					
Problem solving exercises				·		
						ļ
Learning to Mastery  Practice / drill						
		-	ļ	_		-
Structured Review						
Feedback on performance Remediation						
				_		ļ
Group activities/collaborative tasks						<u> </u>
Testing Types		1			·	
Objective knowledge tests						
Essay						
Performance test – "paper" exercise	ļ					
Performance test – hardware simulation						
Performance test – hardware						
Oral testing						
No testing/Student course evaluation	<b>√</b>					
Graphics						
2D graphics still	✓					
3D graphics still						
2D animation						
3D animation						
2D interactive animation						
3D interactive animation						
Pre recorded video /films						
Communications		•	· · · · · · · · · · · · · · · · · · ·			•
Audio	1					Ī
Indirect discourse						
Assigned reading						
Open Discussion						<u> </u>
Question and answer opportunities	<del> </del>					+

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

<b>Course Name:</b> Military Nursing Practice Course	Course N	lumber: A	U515			
Asynchronous Course	WEB Based Training					
Interactivity Factors	Level 1	Level 2	Level 3	Level 4		
Administrative Requirements						
Self pacing		>>>>>>	>>>>>>	>>>>>>		
Group training		A				
On-demand availability		>>>>>>	>>>>>	>>>>>>		
Open entry / open exit		>>>>>>	>>>>>>	>>>>>>		
Detailed student records		>>>>>>	>>>>>>	>>>>>>		
Test Security		>>>>>>	>>>>>>	>>>>>>		
Multiple test forms			>>>>>>	>>>>>>		
Fraining / Instruction Approach						
Lecture / Text	1	>>>>>>	>>>>>>	>>>>>>		
Live Presenters (guest speakers)						
Self study		>>>>>>	>>>>>>	>>>>>>		
Demonstration	-		>>>>>>	>>>>>>		
Exhibit			>>>>>>	>>>>>>		
Guided Discussion				*******		
Simulation – knowledge based			>>>>>	>>>>>>		
Simulation - hardware	-					
Problem solving exercises			>>>>>	>>>>>>		
Learning to Mastery	•	>>>>>	>>>>>>			
Practice / drill		>>>>>>	>>>>>>	>>>>>>		
Structured Review						
Feedback on performance	-		*****	>>>>>		
Remediation			>>>>>>	>>>>>>		
Group activities/collaborative tasks			>>>>>	>>>>>>		
Testing Types	·		•			
Objective knowledge tests		T	TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	T		
Essay Essay		>>>>>	>>>>>	>>>>>		
-						
Performance test – "paper" exercise  Performance test – hardware simulation			>>>>>	>>>>>>		
Performance test – hardware simulation						
	_					
Oral testing						
No testing/Student course evaluation	<b>√</b>	>>>>>	>>>>>	>>>>>		
Graphics		T	T	I		
2D graphics still	7	>>>>>	>>>>>>	>>>>>>		
3D graphics still			>>>>>	>>>>>>		
2D animation	_		>>>>>	>>>>>		
3D animation				>>>>>>		
2D interactive animation				>>>>>>		
3D interactive animation						
Pre recorded video /films			>>>>>	>>>>>		
Communications	<del></del>	1	1 10-1	T		
Audio		>>>>>	>>>>>	>>>>>		
Indirect discourse						
Assigned reading		>>>>>>	>>>>>	>>>>>		
Open Discussion		1000	1000			
Question and answer opportunities						

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

<b>Course Name:</b> Military Nursing Practice Course	Course N	lumber: A				
Asynchronous Course	Computer Based Training					
Interactivity Factors	Level 1	Level 2	Level 3	Level 4		
Administrative Requirements						
Self pacing		>>>>>>	>>>>>>	>>>>>		
Group training		The state of the state of				
On-demand availability		>>>>>>	>>>>>>	>>>>>		
Open entry / open exit		>>>>>>	>>>>>>	>>>>>		
Detailed student records			100000			
Test Security						
Multiple test forms	er i		>>>>>	>>>>>		
Training / Instruction Approach						
Lecture / Text	✓	>>>>>	>>>>>	>>>>>		
Live Presenters (guest speakers)						
Self study		>>>>>	>>>>>	>>>>>		
Demonstration			>>>>>	>>>>>		
Exhibit			>>>>>	>>>>>		
Guided Discussion						
Simulation – knowledge based			>>>>>	>>>>>		
Simulation - hardware						
Problem solving exercises		>>>>>>	>>>>>>	>>>>>		
Learning to Mastery		>>>>>>	>>>>>>	>>>>>		
Practice / drill		>>>>>>	>>>>>>	>>>>>		
Structured Review			>>>>>>	>>>>>		
Feedback on performance		>>>>>>	>>>>>>	>>>>>		
Remediation			>>>>>	>>>>>		
Group activities/collaborative tasks						
Testing Types	_					
Objective knowledge tests		>>>>>	>>>>>	>>>>>		
Essay			1.5			
Performance test - "paper" exercise			>>>>>	>>>>>		
Performance test – hardware simulation				>>>>>		
Performance test – hardware						
Oral testing	100					
No testing/Student course evaluation	<b>√</b>	>>>>>>	>>>>>>	>>>>>		
Graphics			1			
2D graphics still	1	>>>>>>	>>>>>>	>>>>>		
3D graphics still			>>>>>>	>>>>>		
2D animation			>>>>>>	>>>>>		
3D animation				>>>>>		
2D interactive animation				>>>>>		
3D interactive animation						
Pre recorded video /films			>>>>>>	>>>>>		
Communications			· · · · · · · · · · · · · · · · · · ·	1		
Audio		>>>>>	>>>>>>	>>>>>		
Indirect discourse						
Assigned reading		>>>>>	>>>>>>	>>>>>		
Open Discussion		· ·				
Question and answer opportunities						

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

## **Short Worksheet: Development Time**

	Media: W	eb Based		Level: 2		
	Analysis	Design	Development	Implementation	Sums	
1 Percentage of Time Spent by Task Type by Level	0.40	0.20	0.25	0.15		
2 Multiply line 1 by average * hours						
200	244	: .	1 198			
3 Average hrs. per phase	80.00	40.00	50.00	30.00		
4 Adjustments ** for hours per phase. Use 1 for added time and for less time	0.30	0.50	0.80	0.30		
5 Adjusted hrs. per phase. Multiply line 3 by line 4	24.00	20.00	40.00	9.00		
Total Labor Hours - sum across line 5			and Carrier		93.0	

<sup>\*</sup> Average hours per hour of instruction

\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

## **Short Worksheet: Development Time**

Course Name: Military Nursing Practice Cour							
				Level: 2			
	Analysis	Design	Development	Implementation	Sums		
1 Percentage of Time Spent by Task Type by Level	0.40	0.20	0.25	0.15			
2 Multiply line 1 by average * hours			1971	10 mm			
200			Marin Lag	August 1			
3 Average hrs. per phase	80.00	40.00	50.00	30.00			
4 Adjustments ** for hours per phase. Use 1 for added time and for less time	0.30	0.50	0.80	0.30			
5 Adjusted hrs. per phase. Multiply line 3 by line 4	24.00	20.00	40.00	9.00			
Total Labor Hours - sum across line 5		1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	and the second	93.00		

<sup>\*</sup> Average hours per hour of instruction

<sup>\*\*</sup> Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

## **Course Cost Estimation Worksheet**

	Course Cost Estimation Worksheet: Web Based Training	25.00	
Cour	se Name: Military Nursing Practice Course		
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	\$	50.00
3	Multiple line 1 by line 2 and put the results on line 3.	\$	4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	35
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	24.2
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	\$	112,297.50
6.(1997) 7790	Do not use lines 7 to 12 for any costs that are to be shared.	and the	
7	Infrastructure Costs	\$	
8	Recurring Costs	\$	
9	Delivery Labor Costs	\$	
10	Travel Costs	\$	
11	Miscellaneous Costs	\$	
12	Add line 7 to 12	\$	0.00
13	Total Cost - Add lines 6 and 12.	\$	112,297.50
14	Number of potential students.	#	2,200
15	Average Cost Per Student Divide line 13 by line 14	\$	51.04
- \$			1

## **Course Cost Estimation Worksheet**

200 m	Course Cost Estimation Worksheet: CBT Multimedia	
Co	urse Name: Military Nursing Practice Course Course Number: A0515	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs. 93
2	Average hourly labor cost in dollars	\$ 50.00
3	Multiple line 1 by line 2 and put the results on line 3.	\$ 4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs. 35
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs. 24.2
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	\$ 112,297.50
K.,	Do not use lines 7 to 12 for any costs that are to be shared.	The second secon
7	Infrastructure Costs	\$
8	Recurring Costs	\$
9	Delivery Labor Costs	\$
10	Travel Costs	\$
11	Miscellaneous Costs	\$
12	Add line 7 to 12	\$ 0.00
13	Total Cost - Add lines 6 and 12.	\$ 112,297.50
14	Number of potential students.	# 2,200
15	Average Cost Per Student Divide line 13 by line 14	\$ 51.04
		:

## Cost Estimate for a Single Course Over a Five Year Period

Course Name: Military Nursing Pr	rse	e Course Number: A0515				
Technology Selected	Level 1	Level 2	Level 3	Level 4		
WBT		X				
CBT						
VTT	Low	1	High			
Other						
Cost Factors		Values		Source		
1. Labor Hours Year 1		2251		Course Te	chnology Match Table, y Interactivity Factors Table	
2. Labor Hours Year 2		1125			rs reduced because 50% of the	
3. Labor Hours Year 3		1125		course is s	stable.	
4. Labor Hours Year 4	•	1125				
5. Labor Hours Year 5	<del></del>	1125		j		
6. Subtotal	<del></del>	6752			And the state of t	
7. Average Labor Cost per hour		\$50				
<ol><li>Total labor cost over a 5 year p Multiply line 7 by line 6.</li></ol>	eriod.	\$337,590				
Additional Development Costs	By Year					
9. Cost year 1		\$0		Data to Su	pport Cost Analysis Worksheet	
10. Cost year 2		\$0				
11. Cost year 3		\$0				
12. Cost year 4		\$0				
13. Cost year 5		\$0				
14. Total additional costs. Sum lir and enter on line 14	ies 9 to 13	\$0			3000000	
15. Total Course Cost. Add lines and enter on line 15.	8 and 14	\$337,590				
<ul><li>16. Average cost over 5 years. D</li><li>15 by 5 and enter on line 16.</li></ul>	vide line	\$67,518	***************************************			
17. Potential students year 1.		2200		From Cour	rse Information Summary Sheet	
18. Total potential students year 1 (multiply line 17 by 5 and enter on		11000				
<ol> <li>Average cost per student year</li> <li>(Divide line 15 by line 18 and enter</li> <li>18)</li> </ol>		\$31		Round up	to the nearest whole dollar.	

# Army Nurse Corps Company Grade Leadership Course Conversion Analysis

#### ARMY NURSE CORPS COMPANY GRADE LEADERSHIP COURSE

#### Course Purpose

This course provides participants an interactive forum in which to develop their own personal framework for the AMEDD vision that supports leadership development. The stated purpose of the course is to prepare company grade nurse leaders to participate in the evolution of the military health care system.

#### Course Content Stability: Low

The content of this course changes from year to year to reflect the changing needs of the Army and the leadership issues relevant to the Army Nurse Corps.

#### General Presentation Style: Distributive/Collaborative

This course consisted of several lecture-style presentations, on-site visits to the Pentagon and Fort Detrick, and a small discussion group activity spread out over a 3-day period. During the discussion group periods, participants used the information that was presented to them during lectures to prepare a brief for Brigadier General Simmons on issues of concern and their possible solutions. The briefing took place on the final day of the course. It should be noted that this small discussion group/briefing activity was not included in the list of objectives for the course, nor was the time accounted for in the course schedule. However, because this seemed such an integral part of this course, it was included in our analysis. Finally, there were several scheduled 'networking events' in the form of working lunches and a dinner during which senior level nurses from various positions and branches of the military were available to answer questions and to offer career guidance.

## Instructional Aids:

35mm and PowerPoint slides were used during lectures providing both visual aides and outlined information. A video was used to supplement one lecture. In addition, each of the instructors provided handouts with supplemental information relevant to the topic they were addressing

#### Hands-on Activities:

#### Degree of Instructional Interaction

During lecture presentations, students asked questions looking for elaboration of the information presented. These questions tended to feed off of one another, at times opening up into a discussion among the students guided by the lecturer. During field trips, the students met with individuals who held several unique positions within the ANC, and were able to see first hand some of the labs and wards where their work was done. They were able to try some of the latest technological developments that are ready for testing in the field, and make contacts with the developers. The briefing exercise, in which groups of students prepared to brief the General about issues of their choosing, required a high degree of interactivity both among students as well as with the General.

## Relevant Instructional Value: High

This course provides a significant amount of information that is relevant to the professional performance of the attendees.

#### Kakammanania

#### Do not convert to distance learning

Video Teletraining (VTT) was considered as a medium for this course. Although the cost of converting to VTT would represent substantial savings over the current method, it does not appear that the course objectives (formal and informal) could be accomplished by VTT. Specifically, the benefits gained from the small group interaction leading to the final briefing and the field trips involving interaction with senior nursing leaders could not be accomplished by distance learning. This course is a dynamic and highly interactive course whose goal of better preparing tomorrow's leaders is best delivered in real-time. The activities allow the students to go far beyond the basic learning of facts. They learn about career opportunities which must be acted upon today in order to experience them 10 years from now and be better prepared for the leadership roles in which many of them are already filling.

## **DISTANCE LEARNING CONVERSION REPORT FORM**

Course Name: Army Nurse Corps Company Grade Leadership Course			Course N	Number: A	0524		
Instructional goals of the copersonal framework for the AME						ich to deve	elop their own
Frequency of course offering	ner vear	1			11-12-1-11	Yes	No
Current length of course in hours 32			7. Conve	art to DL2		165	X
4. Number of hours to be conver		0	8. Enhan				X
Number of registered students		47	O. Liman				
Number of registered students     Number of potential students that could benefit from the course		40					
9. If item 8 = Yes, Specify					-A118-1	······································	
Technology	Level 1	Level 2	Level 3	Level 4			A Section Control of the Control of
WBT	FCACI I	LCAC! 7	FEAGLO	LCVCI 4			
CBT							
VTT	Low		High 2	X	VTT Con	sidered	
Other			1		111 0011	0.40.04	- to the same of t
Labor Hours Estimation Metho	d: Short	Long	Synchro	nous _X_			
					•		
Cost Data							
10. Total Cost Year One				\$23,980			27
11. Total Cost Year Two				\$15,980			
12. Total Cost Year Three	*****		S	\$15,980			
13. Total Cost Year Four			· · · · · · · · · · · · · · · · · · ·	\$15,980			·
14. Total Cost Year Five			7	\$15,980			
15. Total costs year 1 to 5 (Sum of lines 10 through 14)	· · ·			\$87,900	*****		
(cam of mice to an oagh (4)							
16. Average cost, years 1 to 5 (I	Divide value	in line 15 k	ov 5)	\$17,580		1	***
17. Total potential students over			• ,	200		11/4/4/4	••••
number of potential students [iter	m 6 above]	by 5.)					
18. Average cost per potential (divide the value in line 15 by the			period.	\$440	e e e e e e e e e e e e e e e e e e e		***************************************
The state of the s					***************************************		
Additional Hardware/Software	e Required				F-101.		
Item:				Cost per	unit	Total	
						Cost	
Proposed Enhancements		Cost					
1 10poscu Limancements	M15.N05110	CUSI					**************************************
	1-4					****	
Total Enhancement Costs							
. Juli Emigration Cools							

Instructional Formats and Physical Training Requirements

Course Name: Army Nurse Corps Company Grade Course Number: A0524
Leadership Course

of Course sing this structional ormat	Format	Description	Physical Presence Required?
55.54%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
3.12%	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
15.6%	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
10.92%	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
14.82%	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

**Course Information Summary Sheet** 

	npany Grad	le Leadership Course		
Course Number: A0524				
Length of course - number of hours	of instruct	tion: 27.4 (32.05 actual)		
Number of Registered Students: 47				
	111			
Number of potential students that co				
Instructional goals of the course: To evolution of the military health care sys	o prepare co tem	ompany grade nurse leaders to participa	ate in the	
Frequency of Course Offering: Annu	ıal			
Continuing Education Credit Offered	I? Yes	Number: 25		
For each item listed, check ✓ row	w marked	"Check" if observed or documen	ted.	
Administrative Requirements	Check		Check	
Self pacing		Detailed student records		
Group training		Test Security		
On-demand availability		Multiple test forms		
Open entry / open exit				
Training / Instruction Approach			· · · · · · · · · · · · · · · · · · ·	
Lecture / Text	<b>√</b>	Learning to Mastery		
Live Presenters (guest speakers)		Practice / drill		
Self study		Structured Review		
Demonstration		Feedback on performance		
Exhibit		Remediation		
Guided Discussion		Group activities/collaborative tasks	1	
Simulation (roll play, in-basket)				
Problem solving exercises	✓			
Testing Types				
Objective knowledge tests		Performance test hardware		
Essay		Oral testing		
Performance test –"paper"		No testing/Student course eval		
Performance test – hardware				
Graphics				
2D graphics still	<b>1</b>	3D animation		
3D graphics still	<del>                                     </del>	2D interactive animation		
2D animation		3D interactive animation		
		Pre recorded video /films	1	
Communications	1	1 2 1000.000		
Audio		Open Discussion		
		Question and answer opportunities		
Indirect discourse				

**Course Technology Match Table** 

Course Army Nurse Corps Company Grade			Technologies				
Leadership Course	1011	007			1		
Administrative Requirements	Check	CBT	WBT	VTT			
Self pacing							
Group training							
On-demand availability							
Open entry / open exit							
Detailed student records							
Test Security							
Multiple test forms							
Training / Instruction Approach							
Lecture / Text	1						
Live Presenters (guest speakers)							
Self study							
Demonstration							
Exhibit							
Guided Discussion				-		-	
Simulation – knowledge based							
Simulation - hardware							
Problem solving exercises	1						
Learning to Mastery							
Practice / drill							
Structured Review							
Feedback on performance							
Remediation							
Group activities/collaborative tasks	<b>√</b>	"					
Testing Types				<del> </del>			
Objective knowledge tests							
Essay							
Performance test –"paper" exercise							
Performance test – hardware simulation							
Performance test – hardware							
Oral testing							
No testing/Student course evaluation	1						
Graphics							
2D graphics still	<b>√</b>						
3D graphics still							
2D animation							
3D animation						-	
2D interactive animation						1	
3D interactive animation		<u> </u>			7.77.00	-	
Pre recorded video /films	1					<u> </u>	
Communications							
Audio							
Indirect discourse							
Assigned reading							
Open Discussion	1					<del>                                     </del>	
Question and answer opportunities	1					<del> </del>	

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Course Name: Army Nurse Corps	Course Number: A0524				
Company Grade Leadership Course					
Synchronous Course		letraining			
Interactivity Factors	Level 1 Low	Level 2 High			
Administrative Requirements					
Self pacing	A Company of Addition of the				
Group training		>>>>>>			
On-demand availability					
Open entry / open exit					
Detailed student records					
Test Security		>>>>>>			
Multiple test forms		>>>>>>			
Training / Instruction Approach					
Lecture / Text	<b>√</b>	>>>>>			
Live Presenters (guest speakers)		>>>>>>			
Self study					
Demonstration		>>>>>>			
Exhibit		>>>>>>			
Guided Discussion					
Simulation – knowledge based		>>>>>			
Simulation - hardware					
Problem solving exercises		1			
Learning to Mastery					
Practice / drill					
Structured Review					
Feedback on performance					
Remediation					
Group activities/collaborative tasks		1			
Testing Types					
Objective knowledge tests					
Essay					
Performance test -"paper" exercise	-				
Performance test - hardware simulation					
Performance test – hardware	-				
Oral testing					
No testing/Student course evaluation	1	>>>>>>			
Graphics					
2D graphics still	1	>>>>>>			
3D graphics still		>>>>>>			
2D animation		>>>>>			
3D animation		>>>>>			
2D interactive animation					
3D interactive animation					
Pre recorded video /films	<b>_</b>	>>>>>>			
Communications					
Audio		>>>>>			
Indirect discourse					
Assigned reading		>>>>>			
Open Discussion					

Shaded blocks indicates factors NOT supported by that level of technology Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

## **Calculation of Synchronous Training Costs**

Course Name: Army Nurse Corps Company Grade Leadership Course	Course Number: A0524			
Labor Costs	The state of the s			
Development Cost = (320 hrs.) x average hourly rate (\$50)	\$ 16,000			
Course Managers Studio Cost = (Total studio time + 1 hour for each day the course is offered) x number of times course is presented x average hourly rate (\$50)	\$ 3,700			
$\frac{\text{Non-local Labor Cost}}{\text{x (length of the course in days +1)}} \times \text{number of times}$ offered x average daily rate (\$400)	\$ 0			
Moderator (\$400 per 8 hour day the course is taught)	\$ 0			
Local Labor Cost = Number of local presenters x average hourly rate (\$50) X 2 X number of times course is offered.	\$ 3,800			
Total Labor Costs per session	\$ 23,500			
Additional Cost (any costs not captured above)				
Total Per Diem = (length of course in days plus one travel day x number of non-local presenters) x (local daily per diem rate) x number of time the course will be presented.				
Total Airfare = (Average Round Trip Airfare x number of non-local presenters) x number of times the course will be presented.	0			
Total dollar amount paid as honorariums.	\$ 480			
(Other)				
Total Estimated Cost: Add Total Per Diem, Air Fa Costs.	re, Labor Costs, and Additional			
Total Labor Costs	\$ 23,500			
Total Per Diem	\$ 0			
Total Airfare	\$ 0			
Total paid as honorariums	\$ 480			
TOTAL COURSE COST Year 1	\$ 23,980			
Potential Students	40			
Cost Per Student = Total course costs divided by potential number of students.	\$ 600			

# Cost Estimate for a Single Course Over a Five Year Period

Course Name: Army Nurse Corps Leadership Course	Grade	Course Nu	524		
Technology Selected	Level 1	Level 2	Level 3	Level 4	
WBT					40.0
CBT		-	<del> </del>		77
VTT	.ow		High X		
Other					
Cost Factors		Values		Source	
1. Labor Hours Year 1		470	· · · · · · · · · · · · · · · · · · ·		chnology Match Table,
					y Interactivity Factors Table
2. Labor Hours Year 2		310			
3. Labor Hours Year 3		310			
4. Labor Hours Year 4		310			
5. Labor Hours Year 5		310			
6. Subtotal		1710			
7. Average Labor Cost per hour		\$50			
8. Total labor cost over a 5 year pe Multiply line 7 by line 6.	riod.	\$85,500			
Additional Development Costs	By Year				
9. Cost year 1		\$480		Data to Su	pport Cost Analysis Worksheet
10. Cost year 2		\$480	** <u>****</u>		
11. Cost year 3		\$480			10 00 00 00 00 00 00 00 00 00 00 00 00 0
12. Cost year 4		\$480			3.30
13. Cost year 5		\$480			
14. Total additional costs. Sum line and enter on line 14	es 9 to 13	\$2,400			
15. Total Course Cost. Add lines 8 and enter on line 15.	and 14	\$87,900			
16. Average cost over 5 years. Div 15 by 5 and enter on line 16.	vide line	\$17,580			
17. Potential students year 1.		40		From Cour	se Information Summary Sheet
18. Total potential students year 1 (multiply line 17 by 5 and enter on li		200			
19. Average cost per student year (Divide line 15 by line 18 and enter 18)		\$440		Round up t	to the nearest whole dollar.

# ARMY MEDICAL SPECIALIST CORPS EXECUTIVE MANAGEMENT COURSE Conversion Analysis

#### AMSC Medical Specialist Corps Executive Management Course

#### Course Purpose:

The purpose of the course was to provide knowledge and tools to allow AMSC Senior Leaders to incorporate the Surgeon General's goals (insuring readiness, designing organization, managing care, valuing people, and leveraging technology) in strategically positioning the Corps for mission accomplishment in the 21st Century.

### Course Content Stability: Low Low

The course is presented alternate years with a content selected to meet current course focus/objectives and needs. As such, it is almost entirely dynamic and subject to change.

#### General Presentation Style: Distributive

This course was delivered using lecture, seminar, or a combination of these formats. The majority of the sessions, while falling within the definition of a lecture (one instructor to many learners), were structured to encourage and facilitate a highly interactive discussion and question and answer environment. The information provided in the educational sessions was used to foster skills that were subsequently implemented during the group activity sessions.

#### Instructional Aids:

A combination of overhead slides, computer-generated slides, videotapes, and handouts supported presentation of the course materials.

#### Hands-on Activities:

Heavily interactive group activities designed to use problem-solving, conflict-resolution, and other leadership skills presented during the course were conducted. These sessions, while not incorporating training with equipment or tools, could be considered to meet the definition of a "hands-on" experience facilitating practical experience using the skills taught in the course.

#### Degree of Instructional Interaction

A high level of interaction was demonstrated, both during the lecture sessions and the group activities. Questions and discussions during the sessions tended to incorporate real-world situational problems and issues and an exploration of the means by which the content of the specific presentation might be utilized to address the problem or issue.

## Relevant Instructional Value: High

The course had well-written behavioral objectives that were adhered to during the course. All material was extremely appropriate to military leaders at the level in attendance.

#### Recommendation

#### Do not convert.

This course, through utilization of the AMSC node of the AMEDD Knowledge Management Network, is currently incorporating distance learning concepts by maximizing continued participation of students in the ongoing Corps strategic planning and problem-solving activities initiated during the course. It should also be noted that pre-course activities involving problemidentification by course participants was planned, but logistical problems within the Network prevented its implementation. In addition, VTC was utilized to allow participation of the Surgeon General of the Army directly from his office in the D.C. area to the course site. It is clear that the planners of this course are already aware of, and are appropriately incorporating, distance learning concepts in course execution. The only conversion media considered was VTC. However, the current cost per student (\$840) is less than the cost to convert (\$1,742). In addition, it is doubtful if all course objectives could be adequately met with any distance learning format.

## **DISTANCE LEARNING CONVERSION REPORT FORM**

Course Name: Army Medical Specialist Corps Executive Management Course		rps	Course Number: A 0624					
Instructional goals of the co AMSC Senior Leaders to incorpor managing care, valuing people, a accomplishment in the 21st Centu	ate the Sur nd leveragi	rgeon Gene	eral's goals	(insuring readiness	, designing or	ganization,		
2. Frequency of course offering p	er vear	11	1		Yes	INIO		
3. Current length of course in hou		36	7. Conve	ert to DL2	res	No X		
4. Number of hours to be convert		0	8. Enhan			X X		
5. Number of registered students		50	U. Liman	:				
Number of potential students to benefit from the course	nat could	50						
9. If item 8 = Yes, Specify			***************************************		1475			
Technology	Level 1	Level 2	Level 3	Level 4	77.16			
WTB			2010.0	201014				
CBT								
VTT	Low	<u> </u>	High	1,				
Other		T	1 3					
Labor Hours Estimation Method	: Short _	Long	Synchro	nous X		W-144-1		
Cost Data		•						
10. Total Cost Year One				\$132,366		*****		
11. Total Cost Year Two				\$75,766	-			
12. Total Cost Year Three				\$75,766				
13. Total Cost Year Four				\$75,766				
14. Total Cost Year Five				\$75,766				
15. Total costs year 1 to 5 (Sun	of lines 1	10 through	14)	\$435,430				
			414					
16. Average cost, years 1 to 5 (D	ivide value	in line 15 b	y 5)	\$87,086				
17. Total potential students over number of potential students [item	a five year ı 6 above] l	period. (m by 5.)	ultiply the	250		1		
<b>18.</b> Average cost per potential (divide the value in line 15 by the			oeriod.	\$1,742		WU.		
					1,7000			
Additional Hardware/Software	Required			101.00				
Item:				Cost per unit	Total Cost			
		ra						
Proposed Enhancements	****	Cost						
				- Now				
Total Enhancement Costs								

<sup>&</sup>lt;sup>1</sup> The course is offered on a bi-annual basis. <sup>2</sup> The current cost per student is \$840

Instructional Formats and Physical Training Requirements Course Number:

Co	urs	e N	la	m	e	•

Army Medical Specialist Corps Executive Management Course

A 0624

% of Course Using this Instructional Format	Format	Description	Physical Presence Required?			
50%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No			
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No			
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No			
50%	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.				
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?			
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?			
	Student Verbal Presentations	Students present verbal information to the larger group.	?			
	Student Procedural Presentations	Students present procedural information to the larger group.	?			
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?			
	Shop Activity	Hands-on technical tasks/procedures.	?			
	Lab Activity	Hands-on laboratory tasks/procedures.	?			

Course Information Summary Sheet

Course Name: Army Medical Specialist	Corps Exe	cutive Management Course	
Course Number: A 0624			
Length of course - number of hours	of instruct	ion: 36	
Number of Registered Students: 50			
Number of potential students that cou	uld benefit	from this course: 50	
Instructional goals of the course: The to allow AMSC Senior Leaders to incorp designing organization, managing care, positioning the Corps for mission accom	orate the S valuing ped	urgeon General's goals (insuring read ople, and leveraging technology) in stra	ness,
Frequency of Course Offering: Every	other year		
Continuing Education Credit Offered?	? Yes	Number: 28	
For each item listed, check ✓ row	marked '	"Check" if observed or documer	ited.
Administrative Requirements	Check		Check
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	<b>√</b>	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	<b>-</b>
Simulation (roll play, in-basket)			
Problem solving exercises	<b>√</b>		
Testing Types	T		
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval	<b>1</b>
Performance test – hardware			
Cranhica			
Graphics 2D graphics still	1	3D animation	
3D graphics still	•	2D interactive animation	
2D animation		3D interactive animation	
ZD ammation		Pre recorded video /films	
Communications		The recorded video /IIIIIIS	
Audio		Open Discussion	./
Indirect discourse		Question and answer	-
Assigned reading		adoctor and answer	
	L		

**Course Technology Match Table** 

Course: Army Medical Specialist Corps Ex	ecutive		Te	echnolog	ies	
Management Course	Check					
Administrative Requirements	Cneck	CBT	WBT	VTT		
Self pacing						
Group training						ļ
On-demand availability						
Open entry / open exit						
Detailed student records						
Test Security						
Multiple test forms	ļ					
Training / Instruction Approach	ļ					
Lecture / Text	<b>/</b>					
Live Presenters (guest speakers)						
Self study						
Demonstration				1		
Exhibit						
Guided Discussion						
Simulation – knowledge based						
Simulation - hardware						
Problem solving exercises	✓					
Learning to Mastery						
Practice / drill						
Structured Review						
Feedback on performance						
Remediation						
Group activities/collaborative tasks	1					
Testing Types						
Objective knowledge tests						
Essay			1000			
Performance test - "paper" exercise						
Performance test – hardware simulation						
Performance test – hardware			777	T		
Oral testing						
No testing/Student course evaluation						
Graphics	'					
2D graphics still	<b>√</b>					
3D graphics still						
2D animation	1					
3D animation						
2D interactive animation						
3D interactive animation						
Pre recorded video /films	1		1			
Communications	<del></del>	1				
Audio					T	
Indirect discourse						
Assigned reading					1	
Open Discussion	1				1	-
Question and answer opportunities	<del>  -</del>				+	<del> </del>

If the course requires any of the factors indicated by a black box on the technology side, then this technology should not be used for the course.

**Technology Interactivity Factors** 

Course Name: Army Medical Specialist Corps Executive Management Course	Course Number:	A 0624		
Synchronous Course	Video Te	letraining		
Interactivity Factors	Level 1 Low			
Administrative Requirements				
Self pacing				
Group training		>>>>>		
On-demand availability				
Open entry / open exit				
Detailed student records				
Test Security		>>>>>>		
Multiple test forms		>>>>>		
Fraining / Instruction Approach				
Lecture / Text	1	>>>>>		
Live Presenters (guest speakers)	_	>>>>>		
Self study				
Demonstration		>>>>>		
Exhibit		>>>>>		
Guided Discussion				
Simulation – knowledge based		>>>>>		
Simulation - hardware				
Problem solving exercises		J		
Learning to Mastery				
Practice / drill				
Structured Review				
Feedback on performance				
Remediation				
Group activities/collaborative tasks	-			
Testing Types		<u> </u>		
Objective knowledge tests				
Essay				
Performance test "paper" exercise	_			
Performance test – hardware simulation	_			
Performance test – hardware	-			
Oral testing	-			
No testing/Student course evaluation		>>>>>>		
Graphics				
2D graphics still		>>>>>		
3D graphics still	<b>Y</b>	>>>>>>		
2D animation	+	>>>>>>		
3D animation		>>>>>>		
2D interactive animation				
3D interactive animation				
Pre recorded video /films		>>>>>>		
Communications				
Audio	T	>>>>>>		
Indirect discourse				
		>>>>>>		
Assigned reading	1			
Assigned reading Open Discussion				

Shaded blocks indicates factors NOT supported by that level of technology Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

# Data Required to Calculate Time and Cost of Synchronous Training

Course Name: Army Medical Specialist Corps Executive Management Course	Course Number: A 0624		
Data Required: Time and Cost of Synch	ronous Training - VTT		
Level of Interactivity:		Low	/ High <b>X</b>
Number of time the course is to be offered If interact number of participants by 20 to determine the number offered. If interactivity is low then the number of time	er of times the course should be	#	3 sessions
Length of the course in days.		#	5 per session
Length of the course in contact hours to be converte	d.	#	36
Total Studio Time = Course length in hours		#	36
Total number of presenters.		#	13
Number of non-local presenters.		#	8
Total dollar amount paid as honorariums.		\$	\$6,720
Local daily per diem rate.		\$	\$127
Amount spent on presenter air fare (From Course ac	lministrators survey.)	\$	\$2,100
Salary, average daily rate, assume average 8 hour of 400	ay (military and govt. civilian) = \$	\$	\$400
Average hourly rate = \$50		\$	\$50
Current number of registered students.		#	50
Potential number of students .		#	50
Preparation and planning time (average = 320 hours	5.)	#	320
		×: - :	

# **Calculation of Synchronous Training Costs**

Course Name: Army Medical Specialist Corps	Course Number: A 0624
Executive Management Course	
Labor Costs	
$\frac{\text{Development Cost}}{(\$50)} = (320 \text{ hrs.}) \times \text{average hourly rate}$	\$16,000
Course Managers Studio Cost = (Total studio time + 1 hour for each day the course is offered) x number of times course is presented x average hourly rate (\$50)	\$6,150
Non-local Labor Cost = Number of non-local presenters x (length of the course in days +1) x number of times offered x average daily rate (\$400)	\$57,600
Moderator (\$400 per 8 hour day the course is taught)	\$1,800
Local Labor Cost = Number of local presenters x average hourly rate (\$50) X 2 X number of times course is offered.	\$1,500
Total Labor Costs per session	\$83,050
Additional Cost (any costs not captured above)	
Total Per Diem = (length of course in days plus one travel day x number of non-local presenters) x (local daily per diem rate) x number of time the course will be presented.	\$6,096
Total Air Fare = (Average Round Trip Air Fare x number of non-local presenters) x number of times the course will be presented.	\$6,300
Total dollar amount paid as honorariums.	\$6,720
(Other)	
Total Estimated Cost: Add Total Per Diem, Air Far Costs.	
Total Labor Costs	\$83,050
Total Per Diem	\$6,096
Total Air Fare	\$6,300
Total paid as honorariums  TOTAL COURSE COST Year 1	\$6,720
TOTAL COURSE COST Year 1	\$102,16 6
Potential Students	50
Cost Per Student = Total course costs divided by potential number of students.	\$2,043

# Cost Estimate for a Single Course Over a Five Year Period

Course Name: Army Medical Spe Executive Management Course		Course N	umber: A 0	624	
Technology Selected	Level 1	Level 2	Level 3	Level 4	
WBT					7.46
CBT					
VTT	Low	L	High X		
Other		-	13		
Cost Factors		Values		Source	
1. Labor Hours Year 1		2265			ohnology Motoh Tohlo
T. Laborriours real 1		2203			chnology Match Table, y Interactivity Factors Table
2. Labor Hours Year 2		1133			, moradinity , dolore , dolo
3. Labor Hours Year 3		1133		1	
4. Labor Hours Year 4		1133			
5. Labor Hours Year 5		1133			
6. Subtotal		6795			7574 Marketine (1997)
7. Average Labor Cost per hour		\$50			70°00.
8. Total labor cost over a 5 year p	eriod.	\$339,750			
Multiply line 7 by line 6.					
Additional Development Costs	By Year	•			
9. Cost year 1		\$19,116		Data to Su	pport Cost Analysis Worksheet
10. Cost year 2		\$19,116			
11. Cost year 3		\$19,116			
12. Cost year 4		\$19,116			
13. Cost year 5		\$19,116			
14. Total additional costs. Sum li and enter on line 14	nes 9 to 13	\$95,580			
15. Total Course Cost. Add lines and enter on line 15.	8 and 14	\$435,330			
16. Average cost over 5 years. D 15 by 5 and enter on line 16.	ivide line	\$87,066			
17. Potential students year 1.		50		From Cour	rse Information Summary Sheet
18. Total potential students year (multiply line 17 by 5 and enter on		250	***************************************		
19. Average cost per student yea (Divide line 15 by line 18 and ente 18)		\$1,741		Round up	to the nearest whole dollar.

# AMSC Combat Casualties and Humanitarian Missions Course Conversion Analysis

#### SUPPORT OF COMBATAGASUARTY CARE AND HUMANITARIAN MISSION

#### Course Purpose:

To introduce participants to a wide variety of deployment missions and environments, and to assist them in planning for their participation in future deployments.

#### Course Content Stability

#### L(6)//

This course focuses on presenting the latest relevant information. Each year, different speakers discuss their recent deployment experiences. In addition, experts discuss current operations and world threats.

#### General Presentation Style: Distributive/Interactive

The majority of this course was delivered using a lecture format with opportunity for questions and answers. For each of the primary attending groups (Dietitians and Physical Therapists), there was an activity in which direct involvement of the students was required.

#### Instructional Aids:

35mm slides were used by approximately 65% of the speakers. 50% relied on overhead/PowerPoint during their presentations. Special Equipment was used for demonstrations in about 5% of the activities.

#### Hands-on Activities:

Minor (constructing a Middle Upper Arm Circumference (MUAC) tape to assess malnutrition)

#### Degree of Instructional Interaction:

There was for the most part a high degree of dialogue between presenters and participants during the didactic portions. Participants not only asked questions of the speakers, but also offered their perspectives and experiences as related to a specific content area.

#### Relevant Instructional Value:

#### High

The entire course was structured to introduce participants to a wide variety of deployment missions and environments and to assist them in planning for their participation in deployments in the future.

#### Recommendation:

#### Do not convert to a Distance Learning format.

While the basic content of each didactic session could be presented via distance learning, the group dynamics significantly enhanced the educational experience of these sessions. There were several activities ("Do a Lot with a Little" brainstorming; a group deployment exercise) that relied on group participation for success. Furthermore, a hands-on demonstration and practice of special deployment equipment enabled the students to practice and become familiar with equipment that is not readily available to them unless deployed.

There would be value in providing the information presented by the speakers to a wider audience via a distance learning technology. Analysis has shown that 38 hours (73%) of this course could be converted to Web Based Training. Although the educational experience would not be comparable, it would be valuable. While the course is not recommended for conversion consideration may be given to providing a distance learning alternative to the 96% of potential participants not in attendance who could benefit from much of the information provided. Actual time per student spent on such a course would be considerably less that 35 hours given that dietitians and physical therapists would follow different tracks. The Alternative provided is for informational purposes only and does not constitute a recommendation to convert.

## DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: ALTERNATIVE: AMSC	Combat		Coi	ırs	e Num	ber:	A0630			
Casualties and Humanitarian Missions	Course									
1. Instructional goals of the cou										
and physical therapist of domestic, join										The
course promotes understanding of milit										
(MOOTW), and develops understanding	g of the s	stra	ategic pla	nni	ng req	uired	for assessm	ent and	l delivery	/ of
health care under battlefield conditions	, MOOTV	V, a	and hum	ani	tarian a	and di	saster relief	missior	18.	
							-1985-Million		· · · · · · · · · · · · · · · · · · ·	
2. Frequency of course offering pe		}	<u> 1</u>						Yes	No
3. Current length of course in hour		£	35	7.			to DL?			X
4. Number of hours to be converte	ed	#	35	8.	Enh	nance	?			X
5. Number of registered students		#	80							
6. Number of potential students th	at									
could benefit from the course		#	2000							
				1					1	
9. If item 8 = Yes, Specify:			*							
Technology	Level 1	1	Level	2	Leve	1 3	Level 4			
WBT			X							
CBT		$\dashv$								
VTT	Low				High					
Other	LOW				riigii					
Other						-				
Labor Hours Estimation Method:	Short	v	Long		Syno	hron				
Labor Flours Estimation Wethou.	Short_	_^_	_ Long		Sylic	111011				
			nat Data							
10. Total Coat Voor Ora		C	ost Data		i	Φ 4.4	0.005	Т		
10. Total Cost Year One							3,925			
11. Total Cost Year Two							3,925			
12. Total Cost Year Three							3,925	-		*****
13. Total Cost Year Four	eu-						3,925			
! 4. Total Cost Year Five							3,925			
15. Total costs year 1 to 5 (Sum	of lines	s 1	0 throu	gh	14)	\$ 56	9,625			
16. Average cost, years 1 to 5 (div				5 by	y 5)	\$ 11	3,925			
17. Total potential students over a										
(multiply the number of potent	ial stude	nts	s (item 6	al	oove)					
by 5.)						# 10	,000			
18. Average cost per potential s	tudent c	OV	er 5-yea	r						
period.										
(divide the value in line 15 by t	the value	e ir	n line 17	)		\$ 57	•			
Additio	nal Hard	dw	/are/So	tw	are R	equir	ed			
Item:						Cos	t per unit	Tota	Cost	
Proposed Enhancement(s)	Cost									
	\$									
	\$					***************************************	*******			
Total Enhancement Conta	\$									-
Total Enhancement Costs	\$									
territoria de la companya de la comp										

Instructional Formats and Physical Training Requirements

**Course Name:** <u>Alternative</u>: AMSC Combat Casualties and Humanitarian Missions Course

Course Number: A0630

of Course sing this structional ormat	. Format	Description	Physical Presence Required?
100%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
***************************************	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

**Note:** For this alternative, assume 11 hours common core instruction and 12 hours each of focused instruction for dietitians and physical therapists. Level of interactivity is set at Level 2. Web Based Training would be used due to the large number of potential authors (currently presenters). Assume that 100% of the content will change each year.

#### **Course Information Summary Sheet**

Course Name: ALTERNATIVE: AMSC Combat Casualties and Humanitarian Missions Course

Course Number: A0630

**Length of course - number of hours of instruction:** 

Number of Registered Students: 80

Number of potential students that could benefit from this course: 2000

**Instructional goals of the course:** To enhance the overall military readiness of military dietitians and physical therapist of domestic, joint, and international in a wide variety of deployed environments. The course promotes understanding of military missions in war and military operations other than war (MOOTW), and develops understanding of the strategic planning required for assessment and delivery of health care under battlefield conditions, MOOTW, and humanitarian and disaster relief missions.

Frequency of Course Offering: Once a year

Continuing Education Credit Offered? Yes Number: 29.5

For each item listed, check 🗸 rov	v marked	"Check" if observed or documen	ted.
Administrative Requirements	Check		Chec
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	X	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval.	Х
Performance test – hardware			
Graphics			
2D graphics still	Х	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	
Communications			
Audio		Open Discussion	
Indirect discourse		Question and answer	
Assigned reading			

**Short Worksheet: Development Time** 

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction
Course Name: ALTERNATIVE: AMSC Combat Casualties and Humanitarian Missions Course
Media: WEB Based Training Level: 2

		Analysis	Design	Development	Implementation	Sums
1	Percentage of Time Spent by Task Type by Level	.40	.20	.25	.15	
2	Multiply line 1 by average * hours200		14			No.
3	Average hrs. per phase	80	40	50	30	
4	Adjustments ** for hours per phase Use 1 for added time and for less time	.3	.5	.8	.3	
5	Adjusted hrs. Per phase. Multiply line 3 by line 4.	24	20	40	9	
*	Total Labor Hours - sum across line 5					93

<sup>\*</sup> Average hours per hour of instruction

<sup>\*\*</sup> Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

## **Course Cost Estimation Worksheet**

	Course Cost Estimate Worksheet	rksheet: Web Base	ed Training
AMS		Course Number: /	
1	Write the sum from Refined Estima estimated number of hrs. per hr. of	Hrs. 93	
2	Average hourly labor cost in dollars	}	\$ 50
3	Multiple line 1 by line 2 and put the	results on line 3.	\$ 4650
4	Actual number of classroom equiva converted or developed.	llent hours to be	Hrs. 35
5	Compression: If conversions to asy delivery multiply line 4 by .7 (seven the results on line 5. If not a conver asynchronous delivery skip line 5	tenths) and put	Hrs. 24.5
6	Multiply line 3 by line 5 if a convers asynchronous delivery <b>OR</b> line 3 by conversion to asynchronous deliver on line 6.	/ line 4 if not a	\$ 113,925
	Do not use lines 7 to 12 for any	y costs that are to	be shared.
7	Infrastructure Costs	41440	\$
8	Recurring Costs		\$
9	Delivery Labor Costs		\$
10	Travel Costs		\$
11	Miscellaneous Costs		\$
12	Add line 7 to 12		\$
13	Total Cost - Add lines 6 and 12.		\$ 113,925
14	Number of potential students		# 2000
15	Average Cost Per Student Divide I	ine 13 by line 14	\$ 57

Cost Estimate for a Single Course Over a Five Year Period

Cost Estimate for a Single Course Name: Alternative: Alternative Miss	nbat			urse Numb	er: A0630		
Casualties and Furnamianan Miss	50113 000	1130					<del>-</del> .
Technology Selected	Leve	l 1	Level	2	Level 3	Level 4	
WBT			Х				\$ 1-12/M/S-16/
CBT							
VTT	Low				High		
Other							
Cost Factors			Values			Sourc	e
Labor hours year 1			78.5				
2. Labor hours year 2			78.5			echnology M	
3. Labor hours year 3			78.5		Technolo	gy Interactivi	ity Factors Table
4. Labor hours year 4			78.5				
5. Labor hours year 5			78.5				
6. Subtotal			3,925				
7. Average labor cost		\$ 5	50				
8. Total labor Cost over 5-yr.	period.	¢ 5	569,625				
Multiply line 6 by line 7		Ψ	009,023				
Additional Development/ Del	livery C	ost	By Yea	ar			
9. Cost year 1		\$ (	)		Data to S Workshee	upport Cost et	Analysis
10. Cost year 2		\$ (	)				
11. Cost year 3		\$ (	)				
12. Cost year 4		\$ (	)				
13. Cost year 5		\$ (	)				
14. Total Additional Costs. Sum lines 9 to 13 and ente	er on	\$ (	)				
<ol> <li>Total Course Cost.</li> <li>Add lines 8 and 14 and ent line 15</li> </ol>	er on	\$ :	596,625				
<ol> <li>Average cost over 5 years.</li> <li>Divide line 15 by 5 and ent line 16.</li> </ol>		\$	113,925				
17. Potential students year 1		20	000		From Cou Sheet	ırse Informa	tion Summary
18. Total potential students yes 5 (multiply line 17 by 5. as enter on line 18)	nd		,000				
<ul><li>19. Average cost per student</li><li>5. (divide line 15 by line enter on line 19)</li></ul>				Round up	to the near	est whole dollar	

91B Multisystem Trauma Short Course Conversion Analysis

#### 91B MULTISYSTEM TRAUMA SHORT COURSE

#### Course Purpose

To enhance the medical NCO's capabilities by presenting valuable, up-to-date information on multiple system trauma treatment and management, establish common approaches to similar issues related to trauma, and exchange state-of-the-art information and current trends within the entire spectrum of emergency medical providers.

#### Course Content Stability:

Low

As medicine changes with new ideas and technology, the material presented is the most current to date.

#### General Presentation Style Distributive

The course was primarily lecture format with an opportunity for questions and answers.

#### Instructional Aids:

The majority of the speakers used PowerPoint slides or a 35mm slide projector to support their presentations. A significant portion of the speakers also provided the students with handouts. In addition, there was limited use of video (10%).

#### Hameston Amin'ilias

None

#### Degree of Instructional Interaction

There was an opportunity to ask questions following most of the presentations. Although few questions were asked, when they occurred, the exchanges were informational.

#### Relevant Instructional Value:

A Carlon Comments

This course provides a significant amount of information, but with a goal of making the listeners familiar with the topic. Should the students wish to apply any of the information that was provided, it is doubtful that this could be wisely accomplished without further researching the topic independently.

#### Recommendation

#### Convert to Web Based Training.

The instructional value of this course would benefit from delivery on a distance learning technology that allowed for one-to-many communications, and an asynchronous delivery. Since approximately 90% of the course can change on an annual basis, the best mode of delivery would be Web Based Training, although Computer Based Training could also be utilized. Currently, this course is offered every two years at an estimated cost (by the Course Administrator) of \$158,000. Even if the course had to be completely updated each year. converting to Web Based training would result in savings of over \$37,000 over the two-year period. If the course had to be updated every two years, the savings would double. Offering the course over the web would make it available to everyone in the MOS. If everyone in the MOS took the course over a five-year period, the average cost per student would be only \$20. If everyone took the course in one year, the cost would only be \$4 per student!

## **DISTANCE LEARNING CONVERSION REPORT FORM**

Course Name: 91 B Multisystem Trauma S Course		Short	Course N	lumber: A0711		
Instructional goals of the copersonal framework for the AMEI	<b>urse:</b> To p DD vision th	provide part at supports	ticipants an s leadership	interactive forum in voor development.	vhich to deve	op their own
2. Frequency of course offering	er vear	1			Yes	No
3. Current length of course in ho	•	19	7. Conve	ert to DL2	X	INO
Number of hours to be conver		19	8. Enhar		^	X
5. Number of registered students		448	O. Ellia			X
Number of potential students to benefit from the course		15,224				77.71
9. If item 8 = Yes, Specify						
Technology	Level 1	Level 2	Level 3	Level 4		
WTB		X				
CBT						
VTT	Low		High			
Other						
Labor Hours Estimation Metho	d: Short _)	Long	Synchi	ronous		
Cost Data						
10. Total Cost Year One				\$61,845	T	
11. Total Cost Year Two				\$61,845		
12. Total Cost Year Three				\$61,845		
13. Total Cost Year Four				\$61,845		
14. Total Cost Year Five				\$61,845		- AF-12
15. Total costs year 1 to 5 (Sur	n of lines 1	10 through	14)	\$309,225		
16. Average cost, years 1 to 5 (D				\$61,845		
17. Total potential students over number of potential students [iten			ultiply the	15,224		ccounts for e in the MOS
<b>18.</b> Average cost per potential (divide the value in line 15 by the			period.	\$20		
Additional Hardware/Software	Required					
Item:				Cost per unit	Total	
				o o o o por unit	Cost	
Proposed Enhancements		Cost				
	···.					
Total Enhancement Costs		1				

Instructional Formats and Physical Training Requirements

Course Name: 91B Multisystem Trauma Short Course Number: A0711

Course

% of Course Using this Instructional Format	Format	Description	Physical Presence Required?
100%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
NAME OF THE OWNER O	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

**Course Information Summary Sheet** 

Course Name: 91B Multisystem Trauma Short Course

Course Number: A0711

Length of course - number of hours of instruction: 19

Number of Registered Students: 448

Number of potential students that could benefit from this course: 15,221 (entire career field)

**Instructional goals of the course:** To enhance the medical NCO's capabilities by presenting valuable, up-to-date information on multiple system trauma treatment and management, establish common approaches to similar issues related to trauma, and exchange state-of-the-art information and current trends within the entire spectrum of emergency medical providers.

Frequency of Course Offering: Bi-annual

Continuing Education Credit Offered? Yes

Nu	ımber:	31.4

dministrative Requirements	Check		Chec
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
raining / Instruction Approach			
Lecture / Text	1	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises			
esting Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval	1
Performance test – hardware			
Braphics Braphics			
2D graphics still	1	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	1
communications			
Audio		Open Discussion	1
Indirect discourse		Question and answer opportunities	
Assigned reading			

**Course Technology Match Table** 

Course: 91B Multisystem Trauma Short Cours			T€	chnolog	ies	
Administrative Requirements	Check	CBT	WBT	VTT		
Self pacing						
Group training						
On-demand availability						
Open entry / open exit	1					-
Detailed student records		,				
Test Security						+
Multiple test forms						-
Training / Instruction Approach						
Lecture / Text	1			-	-	
Live Presenters (guest speakers)	-		12.5			<del> </del>
Self study						
Demonstration	-					-
Exhibit						+
Guided Discussion					-	-
Simulation – knowledge based						-
Simulation - hardware						-
Problem solving exercises			1			
Learning to Mastery	1		-			-
Practice / drill				_		
Structured Review						
Feedback on performance						-
Remediation	-			_		
Group activities/collaborative tasks						-
Testing Types	1				.1	
Objective knowledge tests	T	1	1			
Essay						
Performance test –"paper" exercise	-					-
Performance test – hardware simulation			-			-
Performance test – hardware						
Oral testing						-
No testing/Student course evaluation						
Graphics		I				
2D graphics still	<b>J</b>	[		1	1	
3D graphics still	<b>—</b> •		_		-	
2D animation			-			
3D animation			-		-	
2D interactive animation						
3D interactive animation						
Pre recorded video /films	1		<del> </del>			-
Communications						
Audio		<u> </u>		T	T	
Indirect discourse	1				+	
Assigned reading	+					-
Open Discussion	+					-
Question and answer opportunities					<del> </del>	

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

**Technology Interactivity Factors** 

<b>Course Name:</b> 91B Multisystem Trauma Short Course	Course	lumber: A	J/11			
Asynchronous Course	WEB Based Training					
Interactivity Factors		Level 2	Level 3	Level 4		
Administrative Requirements						
Self pacing		>>>>>>	>>>>>>	>>>>>		
Group training						
On-demand availability		>>>>>>	>>>>>>	>>>>>		
Open entry / open exit		>>>>>	>>>>>>	>>>>>		
Detailed student records		>>>>>>	>>>>>>	>>>>>		
Test Security		>>>>>>	>>>>>>	>>>>>		
Multiple test forms			>>>>>>	>>>>>		
Training / Instruction Approach						
Lecture / Text	1	>>>>>>	>>>>>	>>>>>		
Live Presenters (guest speakers)						
Self study		>>>>>	>>>>>	>>>>>		
Demonstration			>>>>>	>>>>>		
Exhibit	· · · · · · · · · · · · · · · · · · ·		>>>>>>	>>>>>		
Guided Discussion	743.5		**********			
Simulation – knowledge based			>>>>>>			
Simulation - hardware			7777777	>>>>>		
Problem solving exercises			>>>>>>			
				>>>>>		
Learning to Mastery  Practice / drill		>>>>>	>>>>>>	>>>>>		
Structured Review		>>>>>	>>>>>	>>>>>		
	- "			>>>>>		
Feedback on performance	•	:	>>>>>	>>>>>		
Remediation			>>>>>	>>>>>		
Group activities/collaborative tasks						
Testing Types	1	T	T	Т		
Objective knowledge tests		>>>>>	>>>>>	>>>>>		
Essay						
Performance test –"paper" exercise	_		>>>>>>	>>>>>		
Performance test – hardware simulation						
Performance test – hardware						
Oral testing						
No testing/Student course evaluation		>>>>>	>>>>>	>>>>>		
Graphics	·			,		
2D graphics still	<b>1</b>	>>>>>>	>>>>>	>>>>>		
3D graphics still			>>>>>	>>>>>		
2D animation			>>>>>	>>>>>		
3D animation	A. 1			>>>>>		
2D interactive animation				>>>>>		
3D interactive animation						
Pre recorded video /films		<b>✓</b>	>>>>>	>>>>>		
Communications	<del></del>	,				
Audio		>>>>>	>>>>>	>>>>>		
Indirect discourse						
Assigned reading		>>>>>>	>>>>>>	>>>>>		
Open Discussion						
Question and answer opportunities						

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

**Technology Interactivity Factors** 

Course Name: 91 B Multisystem Trauma Short Course	Course Number: A0711					
Asynchronous Course	Computer Based Training					
Interactivity Factors	Level 1	Level 2	Level 3	Level 4		
Administrative Requirements						
Self pacing		>>>>>>	>>>>>>	>>>>>		
Group training	200	1				
On-demand availability		>>>>>>	>>>>>	>>>>>		
Open entry / open exit		>>>>>>	>>>>>>	>>>>>		
Detailed student records						
Test Security						
Multiple test forms			>>>>>	>>>>>		
Fraining / Instruction Approach						
Lecture / Text	1	>>>>>	>>>>>>	>>>>>		
Live Presenters (guest speakers)						
Self study		>>>>>>	>>>>>>	>>>>>		
Demonstration			>>>>>>	>>>>>		
Exhibit			>>>>>>	>>>>>		
Guided Discussion						
Simulation – knowledge based			>>>>>>	>>>>>		
Simulation - hardware						
Problem solving exercises		>>>>>>	>>>>>>	>>>>>		
Learning to Mastery		>>>>>	>>>>>>	>>>>>		
Practice / drill		>>>>>>	>>>>>>	>>>>>>		
Structured Review			>>>>>>	>>>>>		
Feedback on performance		>>>>>>	>>>>>>	>>>>>		
Remediation			>>>>>>	>>>>>		
Group activities/collaborative tasks				1		
Testing Types						
Objective knowledge tests	]	>>>>>>	>>>>>>	>>>>>		
Essay						
Performance test - "paper" exercise			>>>>>>	>>>>>		
Performance test – hardware simulation				>>>>>		
Performance test – hardware	_					
Oral testing						
No testing/Student course evaluation	1	>>>>>	>>>>>	>>>>>		
Graphics						
2D graphics still	1	>>>>>>	>>>>>	>>>>>		
3D graphics still	•		>>>>>	>>>>>		
2D animation		Service Control of the Control of th	>>>>>>	>>>>>		
3D animation				>>>>>		
2D interactive animation				>>>>>		
3D interactive animation			ī			
Pre recorded video /films		✓	>>>>>>	>>>>>		
Communications			1	1		
Audio		>>>>>	>>>>>	>>>>>		
Indirect discourse						
Assigned reading		>>>>>>	>>>>>>	>>>>>		
Open Discussion						
Question and answer opportunities						

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

#### **Short Worksheet: Development Time**

#### Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction Course Name: 91B Multisystem Trauma Short Course Media: Web Based Training Level: 2 Analysis Design Development Implementation Sums 1 Percentage of Time Spent by Task Type by Level 0.40 0.20 0.25 0.15 2 Multiply line 1 by average \* hours 3 Average hrs. per phase 80.00 40.00 50.00 30.00 4 Adjustments \*\* for hours per phase. Use 1.\_ for added time and .\_ for less time

by line 4

5 Adjusted hrs. per phase. Multiply line 3

Total Labor Hours - sum across line 5

0.30

24.00

0.50

20.00

0.80

40.00

0.30

9.00

93.00

<sup>\*</sup> Average hours per hour of instruction

<sup>\*\*</sup> Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

## **Short Worksheet: Development Time**

Short Worksheet: Refined Estimate of Dev	/elopment	Hours P	er Hour of Instru	ction	******
Course Name: 91B Multisystem Trauma Sho	ort Course				
	Media: C	omputer l	Based Training	Level: 2	
	Analysis	Design	Development	Implementation	Sums
1 Percentage of Time Spent by Task Type by Level	0.40	0.20	0.25	0.15	
2 Multiply line 1 by average * hours					
200					
3 Average hrs. per phase	80.00	40.00	50.00	30.00	
4 Adjustments ** for hours per phase. Use 1 for added time and for less time					
	0.30	0.50	0.80	0.30	
5 Adjusted hrs. per phase. Multiply line 3 by line 4	24.00	20.00	40.00	9.00	
Total Labor Hours - sum across line 5					93.0

<sup>\*</sup> Average hours per hour of instruction

<sup>\*\*</sup> Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

## **Course Cost Estimation Worksheet**

	Course Cost Estimation Worksheet: Web Based Training		
<b>Cou</b> Cou	rse Name: 91B Multisystem Trauma Short Course Number: A0711 rse		
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	\$	\$50.00
3	Multiple line 1 by line 2 and put the results on line 3.	\$	\$4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	13.3
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	\$	\$61,845.00
	Do not use lines 7 to 12 for any costs that are to be shared.		<del> </del>
7	Infrastructure Costs	\$	
8	Recurring Costs	\$	
9	Delivery Labor Costs	\$	
10	Travel Costs	\$	
11	Miscellaneous Costs	\$	
12	Add line 7 to 12	\$	0.00
13	Total Cost - Add lines 6 and 12.	\$	61,845.00
14	Number of potential students.	#	15,221
15	Average Cost Per Student Divide line 13 by line 14	\$	4.06

## **Course Cost Estimation Worksheet**

	Course Cost Estimation Worksheet: Computer Based Training		
ı	urse Name: 91B Multisystem Trauma Short Course Number: A0711 urse		
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars		50.00
3	Multiple line 1 by line 2 and put the results on line 3.		4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	<u> </u>
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.		13.3
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	\$	61,845.00
	Do not use lines 7 to 12 for any costs that are to be shared.		<u> </u>
7	Infrastructure Costs	\$	
8	Recurring Costs	\$	
9	Delivery Labor Costs	\$	
10	Travel Costs	\$	
11	Miscellaneous Costs	\$	
12	Add line 7 to 12	\$	0.00
13	Total Cost - Add lines 6 and 12.		61,845.00
14	Number of potential students.		15,221
15	Average Cost Per Student Divide line 13 by line 14	L.	4.06
		L	

## Cost Estimate for a Single Course Over a Five Year Period

Course Name: 91 B Multisystem	ort Course	Course Number: A0711			
Technology Selected	Level 1	Level 2	Level 3	Level 4	
WBT		X			
CBT					
VTT	Low		High	.1	
Other	7.7				
Cost Factors		Values		Source	
Labor Hours Year 1		1237	110000	Course Te	echnology Match Table, by Interactivity Factors Table
2. Labor Hours Year 2		1237		recimolog	y interactivity i actors rable
3. Labor Hours Year 3	·	1237			
4. Labor Hours Year 4		1237		1	
5. Labor Hours Year 5		1237			
6. Subtotal		6185	1		47.
7. Average Labor Cost per hour	\$50				
8. Total labor cost over a 5 year p Multiply line 7 by line 6.	eriod.	\$309,225			
Additional Development Costs	By Year	4			
9. Cost year 1		\$0	111111111111111111111111111111111111111	Data to Su	ipport Cost Analysis Worksheet
10. Cost year 2		\$0			
11. Cost year 3		\$0			
12. Cost year 4		\$0			
13. Cost year 5		\$0			
14. Total additional costs. Sum lii and enter on line 14		\$0			
15. Total Course Cost. Add lines and enter on line 15.	8 and 14	\$309,225			
16. Average cost over 5 years. D 15 by 5 and enter on line 16.	ivide line	\$61,845			
17. Potential students year 1.		3044	72.4	From Coul	rse Information Summary Sheet
18. Total potential students year (multiply line 17 by 5 and enter on		15220			23
19. Average cost per student year 1 to 5 (Divide line 15 by line 18 and enter on line 18)		\$20		Round up to the nearest whole dollar	

# 91 R/S/T Short Course (Vet) Conversion Analysis

### 91 R/S/T SHORT COURSE (VET)

#### Purpose of the Course:

R = Veterinary Technician; S = Preventive Medicine; T = Food Service Purpose:

- 91 R/T: To update geographically-isolated soldiers on new methods, guidance, technology, and information related to food inspection and animal care, and to network and share common
- 91 S: Inform students about current issues in Preventive Medicine and to share experience and knowledge.

## Course Content Stability: 🙀 Low

The focus is on the latest developments in the area, and therefore the topics change each year. There are some core topics in the 91 S course that are stable each year.

#### General Presentation Style: Distributive

This course could be better described as a "conference" than a formal course. That is, the information was delivered using a lecture format as the primary vehicle in which one instructor presented information to many learners. Approximately 95% of the instruction was delivered using a basic lecture format. Approximately 2% used film/video as part of the presentation. There was one demonstration/shop activity.

#### Instructional Aids:

Most of the speakers used overhead slides, 35mm slides, or PowerPoint presentation files to aid them in their instruction.

#### Handston Activities

None

#### Degree of Instructional Interaction:

There were opportunities for the students to ask questions. Although many of the instructor's felt that the class interaction was critical to meeting course objectives, the amount of this interaction varied from instructor to instructor. In general, these questions concerned points of clarification, and served to allow the learner to better understand how to apply the information in a real world situation. The question/answer periods were generally limited to an exchange between an individual student and the instructor; that is, the interaction did not expand into a general discussion period involving several students.

## Relevant Instructional Value: Moderate

This course provides a significant amount of information, but with a goal of making the listeners familiar with the topic. Should the students wish to apply any of the information that was provided, it is doubtful that this could be wisely accomplished without further researching the topic independently. A primary benefit of the course appeared to be the opportunity to network and make contacts among peers.

#### Recommendation:

#### Convert to Web Based Training.

This "course" is actually more of a conference insofar as there is no structured set of intended learning outcomes unified by a specific theme. The information itself could easily be presented in the form of Web Based training accompanied by an electronic journal. As such, the entire population could have access to the information, and the presenters could have an "electronic publication" to add to their vitas. In this way, the educational value of the course could be increased insofar as students could participate in interactive activities and be assessed using a distance learning technology.

## DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: 91 R/S/T Short	t)	Course Number: A0717				
1. Instructional goals of the of 91 R/T: To update geographicall related to food inspection and ar 91 S: Inform students about curr	y-isolated so nimal care, a	nd to netw	ork and sha	re common solutior	ns.	ation
<ol><li>Frequency of course offering</li></ol>		11			Yes	No
<ol><li>Current length of course in ho</li></ol>		38 <sup>2</sup>	7. Conve	ert to DL?	X	~
<ol> <li>Number of hours to be conve</li> </ol>	38	8. Enhar	ice?		Х	
<ol><li>Number of registered student</li></ol>		80				
Number of potential students benefit from the course	1,250					
9. If item 8 = Yes, Specify						
Technology	Level 1	Level 2	Level 3	Level 4		
WBT		Х				
CBT			4444			
VTT	Low		High			
Other						
Labor Hours Estimation Metho	od: Short _>	C Long	Synch	ronous		
Cost Data						***
10. Total Cost Year One				\$123,700		
11. Total Cost Year Two				\$123,700		
12. Total Cost Year Three				\$123,700		
13. Total Cost Year Four				\$123,700		
14. Total Cost Year Five				\$123,700		
15. Total costs year 1 to 5 (Su	m of lines	10 through	14)	\$618,500		
16 Average and vege 1 to 5 /	Divide velve	:- !: 45 !	<b></b>	0400 700	<del></del>	
16. Average cost, years 1 to 5 (			, ,	\$123,700		
<ol> <li>Total potential students ove number of potential students [ite</li> </ol>			iuitiply the	6,250		
<b>18.</b> Average cost per potentia (divide the value in line 15 by the			period.	\$99		
Additional Hardware/Softwar	e Required					
Item:	-			Cost per unit	Total Cost	
Proposed Enhancements		Cost				
Total Enhancement Costs						

<sup>&</sup>lt;sup>1</sup> Course is offered bi-annually <sup>2</sup> Includes all breakout hours in the total

Instructional Formats and Physical Training Requirements

Course Name: 91 R/S/T Short Course (Vet)

Course Number: A0717

of Course ing this structional rmat	Format	Description	Physical Presence Required?				
95%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.					
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No				
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No				
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?				
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?				
5%	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.					
***************************************	Student Verbal Presentations	Students present verbal information to the larger group.					
))()()((((((((((((((((((((((((((((((((	Student Procedural Presentations	Students present procedural information to the larger group.	?				
**************************************	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?				
	Shop Activity	Hands-on technical tasks/procedures.	?				
	Lab Activity	Hands-on laboratory tasks/procedures.	?				

**Course Information Summary Sheet** 

Course Name: 91 R/S/T Short Course (Vet) Course Number: A0717 Length of course - number of hours of instruction: 38 Number of Registered Students: 80 Number of potential students that could benefit from this course: 1,250 Instructional goals of the course: 91 R/T: To update geographically-isolated soldiers on new methods, guidance, technology, and information related to food inspection and animal care, and to network and share common solutions. 91 S: Inform students about current issues in Preventive Medicine/share experience and knowledge. Frequency of Course Offering: Bi-Annual Continuing Education Credit Offered? No Number: N/A For each item listed, check ✓ row marked "Check" if observed or documented. **Administrative Requirements** Check Check Self pacing Detailed student records Group training Test Security On-demand availability Multiple test forms Open entry / open exit Training / Instruction Approach Lecture / Text Learning to Mastery Live Presenters (guest speakers) Practice / drill Self study Structured Review Demonstration Feedback on performance Exhibit Remediation Guided Discussion Group activities/collaborative tasks Simulation (roll play, in-basket) Problem solving exercises **Testing Types** Objective knowledge tests Performance test hardware Essay Oral testing Performance test - "paper" No testing/Student course eval Performance test - hardware Graphics 2D graphics still 3D animation 3D graphics still 2D interactive animation 2D animation 3D interactive animation Pre recorded video /films Communications Audio Open Discussion Indirect discourse Question and answer opportunities Assigned reading

**Course Technology Match Table** 

Course 91 R/S/T Short Course (Vet)	Technologies					
Administrative Requirements	Check	CBT	WBT	VTT		
Self pacing						
Group training						
On-demand availability						
Open entry / open exit						
Detailed student records		ĺ				
Test Security						
Multiple test forms						
Training / Instruction Approach						_
Lecture / Text	1			-	<del>-  </del>	
Live Presenters (guest speakers)	<del>-</del>					
Self study						
Demonstration	1					
Exhibit			-			+
Guided Discussion						
Simulation – knowledge based	-					-
Simulation - hardware						-
Problem solving exercises	-					
Learning to Mastery						-
Practice / drill						<del> </del>
Structured Review						
Feedback on performance						_
Remediation						
Group activities/collaborative tasks	-					
Testing Types					1	
Objective knowledge tests						1
Essay	-					
Performance test –"paper" exercise						
Performance test – hardware simulation	<u> </u>					
Performance test – hardware						_
Oral testing						-
No testing/Student course evaluation	1					-
Graphics		<u> </u>	_	J	1	
2D graphics still	1	I				T
3D graphics still	<del></del>					<u> </u>
2D animation			-			
3D animation						<del> </del>
2D interactive animation	-					_
3D interactive animation						
Pre recorded video /films	-			_		
Communications	<u> </u>	l			1	
Audio		<u> </u>		T		
Indirect discourse					<del>                                     </del>	-
Assigned reading						
Open Discussion	1		1			
Question and answer opportunities						-

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

**Technology Interactivity Factors** 

Course Name: 91 R/S/T Short Course (Vet)	Course N	lumber: A		
Asynchronous Course	V	VEB Base	ed Traini	ng
Interactivity Factors	Level 1		Level 3	Level 4
Administrative Requirements				
Self pacing		>>>>>>	>>>>>>	>>>>>
Group training	Age of the second			
On-demand availability		>>>>>>	>>>>>>	>>>>>
Open entry / open exit		>>>>>>	>>>>>>	>>>>>
Detailed student records		>>>>>>	>>>>>>	>>>>>
Test Security		>>>>>>	>>>>>>	>>>>>
Multiple test forms			>>>>>>	>>>>>
Training / Instruction Approach				
Lecture / Text	1	>>>>>>	>>>>>>	>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>	>>>>>>	>>>>>
Demonstration			>>>>>>	>>>>>
Exhibit		<u> </u>	>>>>>>	>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>	>>>>>
Simulation - hardware				
Problem solving exercises	_		>>>>>	>>>>>
Learning to Mastery		>>>>>	>>>>>	>>>>>
Practice / drill		>>>>>>	>>>>>>	>>>>>
Structured Review		. 7		>>>>>
Feedback on performance	The state of the s		>>>>>	>>>>>
Remediation			>>>>>>	>>>>>
Group activities/collaborative tasks	_			******
Testing Types				
Objective knowledge tests		>>>>>	>>>>>	>>>>>
Essay				
Performance test –"paper" exercise	-		>>>>>	>>>>>
Performance test – hardware simulation	_			//////
Performance test – hardware				****
Oral testing				
No testing/Student course evaluation		>>>>>>	>>>>>	*****
Graphics	<u> </u>			>>>>>
2D graphics still		>>>>>	>>>>>>	T
3D graphics still	7		>>>>>>	>>>>>
2D animation			ļ <u></u>	ļ
3D animation		L	>>>>>>	>>>>>
2D interactive animation				>>>>>
				>>>>>
3D interactive animation				
Pre recorded video /films  Communications			>>>>>	>>>>>
		T	Taccion	Teerin
Audio		>>>>>	>>>>>	>>>>>
Indirect discourse		1 45 1 4 1	*	
Assigned reading		>>>>>>	>>>>>>	>>>>>
Open Discussion				
Question and answer opportunities				

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

**Technology Interactivity Factors** 

Course Name: 91 R/S/T Short Course (Vet)	Course Number: A0717					
Asynchronous Course	Cor	nputer B	ased Trai	aining		
Interactivity Factors	Level 1	Level 2	Level 3	Level 4		
Administrative Requirements						
Self pacing		>>>>>>	>>>>>	>>>>>>		
Group training						
On-demand availability		>>>>>>	>>>>>	>>>>>		
Open entry / open exit		>>>>>	>>>>>>	>>>>>		
Detailed student records	.**	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1				
Test Security	· ·					
Multiple test forms			>>>>>>	>>>>>		
Training / Instruction Approach						
Lecture / Text	1	>>>>>>	>>>>>>	>>>>>		
Live Presenters (guest speakers)						
Self study		>>>>>>	>>>>>>	>>>>>		
Demonstration		1	>>>>>>	>>>>>		
Exhibit		<u>~</u>	>>>>>>	>>>>>		
Guided Discussion						
Simulation – knowledge based			>>>>>	>>>>>		
Simulation - hardware			777777	******		
Problem solving exercises		>>>>>	>>>>>	>>>>>		
Learning to Mastery		>>>>>>	>>>>>>	>>>>>		
Practice / drill	<del> </del>	>>>>>>	>>>>>>			
Structured Review		7777777		>>>>>		
			>>>>>>	>>>>>		
Feedback on performance  Remediation		>>>>>>	>>>>>>	>>>>>		
			>>>>>	>>>>>		
Group activities/collaborative tasks						
Testing Types  Objective knowledge tests	7	T = = = = = = = = = = = = = = = = = = =	T	T : : : : : : : :		
Objective knowledge tests		>>>>>	>>>>>	>>>>>		
Essay	-					
Performance test –"paper" exercise	-		>>>>>	>>>>>		
Performance test – hardware simulation	_			>>>>>		
Performance test – hardware						
Oral testing						
No testing/Student course evaluation	<b>/</b>	>>>>>	>>>>>	>>>>>		
Graphics				·		
2D graphics still	<b>1</b>	>>>>>>	>>>>>	>>>>>		
3D graphics still			>>>>>	>>>>>		
2D animation		L	>>>>>	>>>>>		
3D animation				>>>>>		
2D interactive animation				>>>>>		
3D interactive animation						
Pre recorded video /films			>>>>>>	>>>>>		
Communications						
Audio		>>>>>>	>>>>>>	>>>>>		
Indirect discourse						
Assigned reading		>>>>>	>>>>>	>>>>>		
Open Discussion						
Question and answer opportunities						

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

# **Short Worksheet: Development Time**

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction

	Media: We	eb Based	Level: 2	Level: 2		
	Analysis	Design	Development	Implementation	Sum	
1 Percentage of Time Spent by Task Type by Level	0.40	0.20	0.25	0.15	ik Ik	
2 Multiply line 1 by average * hours 200	1.			and the second s		
3 Average hrs. per phase	80.00	40.00	50.00	30.00		
4 Adjustments ** for hours per phase. Use 1 for added time and for less time	0.30	0.50	0.80	0.30		
5 Adjusted hrs. per phase. Multiply line 3 by line 4	24.00	20.00	40.00	9.00		

<sup>\*</sup> Average hours per hour of instruction

line 5

Total Labor Hours - sum across

93.00

<sup>\*\*</sup> Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

# **Short Worksheet: Development Time**

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction

Course N	<b>lame:</b> 91	R/S/T	Short	Course	(Vet)

		Media: Co	mputer B	Level: 2		
		Analysis	Design	Development	Implementation	Sum
1	Percentage of Time Spent by Task Type by Level	0.40	0.20	0.25	0.15	
2	Multiply line 1 by average * hours 200					
3	Average hrs. per phase	80.00	40.00	50.00	30.00	
4	Adjustments ** for hours per phase. Use 1 for added time and for less time	0.30	0.50	0.80	0.30	
5	Adjusted hrs. per phase. Multiply line 3 by line 4	24.00	20.00	40.00	9.00	
	Total Labor Hours - sum across line 5			-		93.00

<sup>\*</sup> Average hours per hour of instruction

<sup>\*\*</sup> Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

# **Course Cost Estimation Worksheet**

1.	Course Cost Estimation Worksheet: Web Based Training	** .	
Cou	rse Name: 91 R/S/T Short Course (Vet) Course Number: A	0717	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	\$	50.00
3	Multiple line 1 by line 2 and put the results on line 3.	\$	4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	38
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	26.6
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	\$	123,690.00
ì	Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	\$	
8	Recurring Costs	\$	
9	Delivery Labor Costs	\$	
10	Travel Costs	\$	
11	Miscellaneous Costs	\$	
12	Add line 7 to 12	\$	0.00
13	Total Cost - Add lines 6 and 12.	\$	123,690.00
14	Number of potential students.	#	1,250
15	Average Cost Per Student Divide line 13 by line 14	\$	98.95

# **Course Cost Estimation Worksheet**

11197 . 1 001.00	Course Cost Estimation Worksheet: Computer Based Training		
Со	urse Name: 91 R/S/T Short Course (Vet) Course Number: A 0717		
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	\$	50.00
3	Multiple line 1 by line 2 and put the results on line 3.	\$	4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	38
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	26.6
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	\$	123,690.00
4.	Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	\$	
8	Recurring Costs	\$	
9	Delivery Labor Costs	\$	
10	Travel Costs	\$	
11	Miscellaneous Costs	\$	
12	Add line 7 to 12	\$	0.00
13	Total Cost - Add lines 6 and 12.	\$	123,690.00
14	Number of potential students.	#	1,250
15	Average Cost Per Student Divide line 13 by line 14	\$	98.95
876			

# Cost Estimate for a Single Course Over a Five Year Period

Course Name: 91 R/S/T Short C	)	Course N	umber: A07	17	
Technology Selected	Level 1	Level 2	Level 3	Level 4	
WBT		X			
CBT	W 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
VTT	Low	I	High	L	
Other					
Cost Factors		Values		Source	
1. Labor Hours Year 1	7/10/10	2,473.8		Course Ted Table, Tecl	chnology Match hnology Factors Table
2. Labor Hours Year 2		2,473.8		1	
3. Labor Hours Year 3		2,473.8			
l. Labor Hours Year 4		2,473.8			
5. Labor Hours Year 5		2,473.8			
5. Subtotal		12,369	1.4.00		
<ol> <li>Average Labor Cost per hour</li> </ol>		\$50			
3. Total labor cost over a 5 year p Multiply line 7 by line 6.	eriod.	\$618,450			100
<b>Additional Development Costs</b>	By Year	<u> </u>			V-17/1.
D. Cost year 1		\$0	Data to Su Workshee	pport Cost A t	Analysis
I0. Cost year 2	718/4	\$0			
1. Cost year 3		\$0			
2. Cost year 4		\$0			***************************************
3. Cost year 5		\$0			
<ol> <li>Total additional costs. Sum linard enter on line 14</li> </ol>	nes 9 to 13	\$0	<del></del>		
5. Total Course Cost. Add lines and enter on line 15.	8 and 14	\$618,450			
<ul><li>16. Average cost over 5 years. Di</li><li>15 by 5 and enter on line 16.</li></ul>	ivide line	\$123,690			
17. Potential students year 1.		1,250	From Coul	rse Informati	on Summary
<ol> <li>Total potential students year 1 multiply line 17 by 5 and enter on</li> </ol>		6250	-		
<ol> <li>Average cost per student year</li> <li>Divide line 15 by line 18 and enter</li> <li>18)</li> </ol>		\$99	Round up	to the neare	st whole dollar.

Health Care Ethics Conversion Analysis

#### 

#### Course Purpose:

To provide chaplains with the tools for ethical decision-making with a particular focus on medical and battle field ethics.

### Course Content Stability: High

Although the examples used during the course may change, the focus on the "case study method" remains constant.

General Presentation Style: Lecture/Simulation/Open Discussion

Background information was presented using a basic lecture format. Many of the issues were then further examined using group discussion. The application of the case study method was demonstrated using a discussion format as well. High level of interactivity

#### Instructional Aids:

Lecture was supplemented with overhead slides outlining the information being presented. Handouts provided guidelines concerning the case study method and information about activities that the students would be participating in, as well as films/VCR presentations were used,

#### Hands-on Activities:

None.

### Degree of Instructional Interaction:

The students participated in several discussions, and a role play. This allowed the students to more fully explore some rather sensitive and "gray area" issues. In addition, they could demonstrate that they had integrated the information presented concerning the "case study method", and were able to work through a "real life" problem using it.

# Relevant Instructional Value: High

This seminar presented professionally relevant information as well as a methodology that could be used to function more effectively on the job.

#### Recommendation:

### Do not convert to a distance learning mode

While it is possible to convert this course to Video Teletraining, the cost per student is very high. The high level of interactivity would require the course to be presented at least twice in order for a high level of interactivity to be maintained. While it is possible to separate the methodology from the application so that students could review the material, and familiarize themselves with the content before attending the course, the high level of integration in this course would require that this material be presented again in the course and in context. Given the short length of the course, and the small number of students, pre-course instruction will not provide any significant savings.

# DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: Health Care Ethics			Cour	se Nu	umber: /	40803			
1. Instructional goals of the cou				lains	with the	tools for ethi	cal decisio	n-ma	aking
with a particular focus on medical and	battle field	ethic	S.						
2			— т						
2. Frequency of course offering p	er year:	# le					)	⁄es	No
2. 0		than							
3. Current length of course in hou		# 24			Convert t				X
4. Number of hours to be converted.	ed	# 24		8. E	nhance	?			X
5. Number of registered students		# 15	)						
6. Number of potential students th	nat	,, 0,	_						
could benefit from the course	ID ETIU	# 35		<u> </u>					
RECOMMEN	ND ETHI	CS C	OUR	SE E	BE LEF	T AS-IS			
9. If item 8 = Yes, Specify									
Technology	Level 1	Le	vel 2	Le	evel 3	Level 4			
WBT									
СВТ								·····	
VTT	Low			Hi	gh				
Other									
Labor Hours Estimation Method	: Short _	<u>X_ L</u>	.ong_	Sy	nchron	ous			
						***************************************			
		Cost	Data						
10. Total Cost Year One					\$				
11. Total Cost Year Two					\$				
12. Total Cost Year Three					\$				
13. Total Cost Year Four					\$				
!4. Total Cost Year Five					\$				
15. Total costs year 1 to 5 (Sun	n of lines	10 ti	hroug	h 14,	) \$				
16. Average cost, years 1 to 5 (di				by 5)	) \$				
17. Total potential students over a									
(multiply the number of potent	tial studei	nts (it	em 6	above	· 1				
by 5.)			-		#				
18. Average cost per potential s	student o	ver 5	year						
period.	41	C	- 47)						
(divide the value in line 15 by	the value	e in iin	e 1/)		\$				······································
A .l.al:4:		J	10 - 44		Di				
Item:	onal Hard	iware	2/5011	ware			T-4-10		
item:					Cost	t per unit	Total Co	ost	
Proposed Enhancement(s)	Cost								
Electronic Journal	\$								
	\$								
	\$								
Total Enhancement Costs	\$								
	·								
A STAN STORY WAY IN				٠.		100			

Instructional Formats and Physical Training Requirements

Course Name:
Health Care Ethics

Course Number:
A0803

% of Course Using this Instructional Format	Format	Description	Physical Presence Required
77%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
12%	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
pppermitted and the property of the property o	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

# **Course Information Summary Sheet**

Course Name: Health Care Ethics			
Course Number: A0803			
Length of course - number of hours	of instruct	ion: 24	
Number of Registered Students: 15			
Number of potential students that co	uld benefit	from this course: 35	
Instructional goals of the course: To with a particular focus on medical and b	provide ch	aplains with the tools for ethical decisi	on-making
Frequency of Course Offering: less		year	
Continuing Education Credit Offered	? NO	Number: N/A	
For each item listed, check ✔ row	v marked	"Check" if observed or docume	nted.
Administrative Requirements	Check		Check
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	X	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion	X	Group activities/collaborative tasks	0 72070
Simulation (roll play, in-basket)	X		
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course	X
Performance test – hardware			
Graphics			
2D graphics still	Х	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	X
Communications	•		_ +
Audio		Open Discussion	X
Indirect discourse		Question and answer	X
Assigned reading	1		

**Course Technology Match Table** 

Course Name: Health Care Ethics			Technologies				
Administrative Requirements	Check	CBT	WBT	VTT			
Self pacing							
Group training							
On-demand availability							
Open entry / open exit							
Detailed student records		: · · ·					
Test Security							
Multiple test forms						1	
Training / Instruction Approach							
Lecture / Text	Х					1	
Live Presenters (guest speakers)						+	
Self study							
Demonstration						+	
Exhibit						+	
Guided Discussion	Х						
Simulation – knowledge based	X					_	
Simulation - hardware							
Problem solving exercises						+	
Learning to Mastery						+	
Practice / drill						+	
Structured Review						+	
Feedback on performance						+	
Remediation							
Group activities/collaborative tasks							
Testing Types					l,	<u> </u>	
Objective knowledge tests		I				Τ	
Essay						+	
Performance test - "paper" exercise							
Performance test – hardware simulation				-			
Performance test – hardware		1000	150	-			
Oral testing		•					
No testing/Student course evaluation	X						
Graphics		1					
2D graphics still	X	1			<u> </u>		
3D graphics still	^					+	
2D animation						+	
3D animation	<u> </u>						
2D interactive animation	<del> </del>					-	
3D interactive animation							
Pre recorded video /films	Х					1	
Communications		I	<u> </u>		1		
Audio			T		T		
Indirect discourse	1		.l			-	
Assigned reading	+					_	
Open Discussion	X					+	
Question and answer opportunities	X				-		

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

**Technology Interactivity Factors** 

Synchronous Course	Video Teletraining			
Interactivity Factors	Level 1 Low			
Administrative Requirements				
Self pacing				
Group training		>>>>>		
On-demand availability				
Open entry / open exit				
Detailed student records				
Test Security		>>>>>>		
Multiple test forms		>>>>>		
Training / Instruction Approach				
Lecture / Text	Х	>>>>>		
Live Presenters (guest speakers)		>>>>>		
Self study				
Demonstration		>>>>>		
Exhibit		>>>>>		
Guided Discussion		Х		
Simulation – knowledge based	Х	>>>>>		
Simulation - hardware				
Problem solving exercises	-			
Learning to Mastery				
Practice / drill				
Structured Review				
Feedback on performance				
Remediation				
Group activities/collaborative tasks				
Testing Types				
Objective knowledge tests				
Essay	4.			
Performance test - "paper" exercise				
Performance test – hardware simulation				
Performance test – hardware				
Oral testing				
No testing/Student course evaluation	X	>>>>>>		
Graphics				
2D graphics still		>>>>>		
3D graphics still		>>>>>		
2D animation		>>>>>		
3D animation		>>>>>		
2D interactive animation				
3D interactive animation				
Pre recorded video /films		>>>>>>		
Communications				
Audio		>>>>>>		
Indirect discourse				
Assigned reading		>>>>>>		
Open Discussion		Χ		
Question and answer opportunities		Х		

Shaded blocks indicates factors NOT supported by that level of technology Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

**Calculation of Synchronous Training Costs** 

Course Name: Health Care Ethics	Course Number: A0803
LahanOss	A
Labor Cos	ts:
Development Cost = $(160 \text{ hrs.}) \times \text{average hourly}$ rate $(\$50)$	<b>*</b> 0000
	\$ 8000
Course Managers Studio Cost = (Total studio time	
+ 1 hour for each day the course is offered) x number of times course is presented x average	
hourly rate (\$50)	¢ 2000
Non-local Labor Cost = Number of non-local	\$ 2800
presenters ) x (length of the course in days +1) x	
number of times offered x average daily rate (\$400	£ 12.000
Local Labor Cost + Number of local presenters x	\$ 12,000
average hourly rate (\$50) X 2 X number of times	
course is offered.	\$ none
Total Labor Costs	\$ 22,800
Total Labor Gosts	Ψ 22,000
Additional Cost (any costs	not captured above)
Total Per Diem =	
(length of course in days plus one	
travel day x number of non-local presenters) x	
(local daily per diem rate) x number of time the	
course will be presented.	\$ 3,630
Total Airfare = (Average Round Trip Airfare x	
number of non-local presenters) x number of times	
the course will be presented.	\$ 1000
Total dollar amount paid as honorariums	\$ none
(Other)	\$ none
Total Estimated Cost: Add Total Per Diem, Airf	are Lahor Costs and Additional Costs
Total Labor Costs	\$ 22,800
Total Per Diem	\$ 3,630
Total Airfare	\$ 1,000
Total paid as honorariums	\$ none
(other) electronic journal	\$ none
TOTAL COURSE COST Year 1	\$ 27,430
Cost Per Student = Total course costs divided by	Ψ Δ1,430
potential number of students (35)	\$ 783
potential number of students (00)	Ψ 103

#### Note:

- Given the small number of presenters and their high level of experience delivering this type of
  information, preparation time should be well below the average. Therefore the time spent in
  preparation and planning by all involved should be less. The estimate used is 160 hours for
  the first year, if converted.
- Since all presenters stayed at the facility where the course was given they are all considered non-local even though only required air travel.

Cost Estimate for a Single Course Name: Health Care Ethi	ics		purse Number: A0803			
Course Number: A0803						
Technology Selected	Level 1	Level 2	Level 3	Level 4		
WBT						
CBT						
VTT	Low	- I	High X			
Other						
Cost Factors		Values	T			
1. Labor hours year 1		160	Source		urce	
2. Labor hours year 2		80	Course T	Course Technology Match Table		
3. Labor hours year 3		80	Tochnolog	echnology N	riaton Labie	
4. Labor hours year 4		80		yy mieraciiv	ity Factors Table	
5. Labor hours year 5	-	80				
6. Subtotal		480	Covers			
7. Average labor cost		50	Covers p	Covers preparation and planning time		
3. Total labor Cost over 5 yr. pe	riod Ψ	30				
Multiply line 6 by line 7	110d.   \$	24,000				
Additional Development/ Delive	ery Cos	t By Voor				
		19,430	Data to S	unnort Coot	Analysis Madelan	
10. Cost year 2		16,630	Data to Support Cost Analysis Worksheet			
		10,000	Additional	Costs inclu	de course managers	
			studio tim	e for vear o	de course managers	
11. Cost year 3	\$	16,630	studio time for year one only, non-local labor costs, per diem and air fair.		and air fair	
I2. Cost year 4		16,630	iduor costo, per diem and an fair.		and all fall.	
3. Cost year 5		16,630				
4. Total Additional Costs .						
Sum lines 9 to 13 and enter o	n \$	85,950				
line 14						
15. Total Course Cost.						
Add lines 8 and 14 and enter	on \$	109,950				
line 15						
16. Average cost over 5 years.						
Divide line 15 by 5 and enter of	on   \$	21,990				
line 16.						
7. Potential students year 1		35	From Cou	rse Informa	tion Summary Sheet	
18. Total potential students year 1						
5 (multiply line 17 by 5. and	1	75				
enter on line 18)						
9. Average cost per student yr.		000	Round up to the nearest whole dollar			
5. (divide line 15 by line 18	and   \$	629			est whole dollar	
enter on line 19)						